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ABSTRACT

To determine children's knowledge of the less frequent grammatical usages of words that may occur in more than one part of speech, lists of such words were developed. The grammatical functions of 1220 common words from two word counts were examined; about 50% were found to be grammatically ambiguous. Data were collected from about 1500 children in grades 3, 6, and 9 to learn in what parts of speech 240 grammatically ambiguous words would be used when the children wrote sentences illustrating their uses. About 55% of these words were used "infrequently" in one or more of their possible parts of speech. An intensive study was made of the comprehension, by 2000 third, sixth, and ninth graders, of 63 words with infrequently used grammatical functions. Findings showed that for about 90% of these words, children had significantly more difficulty in comprehending the infrequent grammatical functions than the more usual grammatical ones. It was concluded that acquisition of lexicogrammatical information about grammatically ambiguous words is a slow process, far from complete at grade 9. Development of this knowledge is moderately well correlated with general vocabulary knowledge. It is recommended that English curriculums pay greater attention to the explicit teaching of the less frequent grammatical functions of ambiguous words. (Author/JMC)

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John B. Carroll
Educational Testing Service
Princeton, N. J. 08540

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PREFACE

This research was conducted under a contract with the U. S. Office of Education that resulted from an application to the Committee on Basic Research in Education established jointly by the National Academy of Education and the National Academy of Sciences. It was intended to illustrate a kind of research that would be "basic" in the sense that it would make a contribution not only to educational practice but also to the scientific knowledge of human behavior. I am grateful for the opportunity thus afforded to conduct a major piece of research that I believe has succeeded in fulfilling this intention, at least in some measure.

I wish to acknowledge the cooperation of many school officials in making it possible to administer at their institutions the numerous tests and instruments that were developed in the course of this research:

For the pilot study described in Chapter III:

Princeton, N.J.: Mr. Douglas McClure, Headmaster,
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Ewing, N.J.: Dr. David Brittain, Superintendent,
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For the main study described in Chapter V:

Dover, Delaware: Dr. Wilmer Wise, Dept. of Public Instruction,
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Dr. James Campbell, Dept. of Public Instruction,
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Mr. Melvin Warren, Elementary School Supervisor,
Capital School District
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Bensalem Township Schools
Dr. Edward J. Butler, Research Director,
Bensalem Township Schools

New Brunswick, N.J.: Mrs. Bessie Carnegie, Elementary Supervisor,
New Brunswick School System
Mr. Robert Lowy, Principal,
New Brunswick Junior High School

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John B. Carroll

SUMMARY

The aim was to study the development of children's lexicogrammatical knowledge of words, in particular, their knowledge of the less frequent grammatical usages of words that may occur in more than one part of speech. To develop lists of such words, the grammatical functions of 1220 common words drawn from two word-counts were examined; about 50 percent were found to be grammatically ambiguous. Data were collected from about 1500 children in grades 3, 6, and 9 to determine in what parts of speech 240 grammatically ambiguous words would be used when the children were asked to write sentences illustrating their uses; about 55 percent of these words were found to be used "infrequently" (according to a certain criterion) in one or more of their possible parts of speech. An intensive study was made of the comprehension, by 2000 3rd, 6th, and 9th grade children, of 63 words with infrequently used grammatical functions. For about 90 percent of these words, it was found that the children had significantly more difficulty in comprehending the infrequent grammatical functions than in comprehending the more usual grammatical functions. In many cases, grammatical function _per se_ was a significant factor; in other cases, differential meanings of the words may also have been a factor. Developmental trends were noted, and it was concluded that acquisition of lexicogrammatical information about grammatically ambiguous words is a slow process that is far from complete even at the 9th grade level. Development of this knowledge is moderately well correlated with general vocabulary knowledge. Because lack of lexicogrammatical information is an important (and generally unrecognized) factor in comprehension difficulties, it is recommended that the English language arts curriculum pay greater attention to the explicit teaching of the less frequent grammatical functions of grammatically ambiguous words. The psycholinguistic implications of the results are discussed.

Chapter I

Introduction

Background

A great many words in the English language can be used in a variety of grammatical functions. For example, the common word like can be used in several senses as a noun ("He had his likes and dislikes"; "We won't see his like again"), as a verb ("I like tomatoes"; "Come when you like"), as an adjective ("He is like his father"; "Do it in like manner"), and as a preposition ("He worked like a horse"). Colloquially, it is used also as a conjunction (as in "Tell it like it is" and in a currently popular ad slogan, "....taste like a cigarette should"), and as an adverb ("He was kinda skinny, like"). But like is only one of very many words that exhibit what we may term grammatical ambiguity. Sometimes a grammatically ambiguous word carries the same basic sense in all its grammatical manifestations, for example, the word alert (noun, verb, adjective), but sometimes a number of different senses are found, as in the word present (for which several senses, "gift," "offer, hand to" and "current time" are found in noun, verb, and adjective usages).

Grammatical ambiguity is found in words in both spoken and written form. If anything, ambiguity is more frequent in the spoken forms of words than in the written forms, for often the spelling of a word is a cue to its grammatical part of speech (e.g., pear is a noun, while the homophonous pare is a verb). In the research to be presented here, practical considerations have dictated that the study be limited to the grammatical ambiguities in printed words. The grammatical ambiguities of spoken words could be made the subject of a further investigation.

Ambiguity in language can lead to difficulties in comprehension, either because the language user does not have sufficient context to disambiguate the message (i.e., decide in what sense it is to be taken), or because the language user has not learned the meaning or sense in which a given word is used in a particular message. The first case is illustrated by a flatly ambiguous sentence like Time flies like an arrow, which could be taken in several ways depending upon whether time is construed as a noun, a verb, or an adjectival. The second case is illustrated by an instance in which a professional acquaintance of the writer's, even though highly educated, did not recognize that the phrase "an earnest of his intentions" is grammatically correct, because he did not know that earnest can be used as a noun, with a special meaning, as well as an adjective.

One aspect of the competence of a language user is his knowledge of the grammatical functions of lexical items. We know very little about how children acquire this knowledge, or indeed, how much knowledge they acquire and at what rate. If children fail to acquire an adequate knowledge of the grammatical functions of the words in their vocabulary, it is likely that they will not understand language as well as they might.

This research was designed to yield information concerning the development of children's knowledge of the grammatical functions of printed words in English, and to see to what extent any lacks in this knowledge might inhibit their understanding of language.

The motivation for this research was both practical and theoretical.

On the practical side, it seems obvious that any information that could be gained concerning developmental trends in language understanding would be of use in promoting the growth of language competence through education. Educators have found much use for vocabulary studies, but these studies have paid very little attention to the grammatical functions of words. One can find instances of words that are assigned high frequencies in word-lists but that can appear in very unusual meanings and grammatical functions. A good example is the word are, which is one of the most frequent words in the English language. It nearly always appears as one of the forms of the verb to be, but it has a homonym, are, that refers to a unit in the metric system. In this meaning are is a noun, but of course the frequency with which the word occurs in this meaning is very low. We would expect a child to have difficulty in comprehension if he meets the word are in its noun function. The word "are" is an extreme case, but if we consider the many grammatically ambiguous words of more moderate frequency, it becomes obvious that frequency lists may be very misleading when they do not take grammatical function into account. Teachers and others concerned with preparing instructional material need information on the relative frequencies of different manifestations of lexical items. They also need information on the extent to which difficulties in comprehending language are due to failures in understanding the grammatical functions of words; if such difficulties are indeed found to be associated with failures in understanding grammatical functions, it may be desirable to develop special materials to help pupils learn a generalized skill of interpreting words in uncommon grammatical functions. This research has sought to provide such information.

On the theoretical side, this research was motivated by the idea that a study of the ways in which children perceive the grammatical functions of words would contribute towards better understanding of fundamental processes of the learning and comprehension of language. One important aspect of the understanding of language is the assignment of grammatical structure to sentences that are heard or read. "Understanding" a sentence like Time flies like an arrow involves deciding that its grammatical structure (at least at a surface level) is

Time	flies	like an arrow
(Noun)	(Verb)	(Prepositional phrase)

rather than some other possible interpretation. The individual's ability to interpret such sentences depends in part upon his knowledge of the grammatical information contained in lexical items. We know little, however, about the development of such grammatical information in the individual.

This is, in fact, a matter of current interest in linguistic and psychological theory. Katz and Postal (1964) postulate that users of a language acquire knowledge of the "dictionary entries" of the lexical items both in terms of syntactic markers and semantic markers. The syntactic markers would involve information as to what part or parts of speech the word can be used. There has been controversy over whether the dictionary entries involve only some "base form" of the item in a given part of speech, with transformational rules postulated to take care of derivations to other parts of speech (the "transformationalist hypothesis"), or, on the contrary, involve simultaneously all the parts of speech in which an item appears (the "lexicalist" hypothesis). Whitaker (1970) presents evidence from studies with aphasics that he claims supports the lexicalist hypothesis.

In effect, this study is an investigation of one aspect of what may be called "parsing behavior," i.e., the individual's assignment of grammatical classifications to lexical items. Parsing is a word that traditionally means "assigning parts of speech"; it usually denotes the explicit verbal classification of words in sentences, i.e., calling them nouns, verbs, etc., and indicating the relationships of the words in a sentence by showing phrase structure, immediate constituents, etc. In our usage of the word here, however, we refer to the implicit perception of words as having certain grammatical properties, even if this perception takes place completely out of awareness.

Ordinarily, grammatical functions of words are cued by the total linguistic and nonlinguistic contexts in which they appear. The context is often minimal, but not always so. Examples of minimal linguistic contexts for "parsing" the word alert as noun, verb, or adjective are the following: "An alert!" "Alert him!" and "Be alert!"

Nevertheless, for analytical purposes it is useful to study the language user's perceptions of the grammatical functions of lexical items in isolation. It is possible that such perceptions play some fundamental role in understanding and parsing words even when they are in context, and that the effect of context in normal language messages is to modulate in some special way the "parsing" that occurs when the word is presented in isolation. If so, it would be desirable to study under what conditions this modulation takes place, and there would be a need for "baseline" studies of grammatical perceptions of words in isolation. The present study is designed to obtain such baseline information for a fairly representative sample of grammatically ambiguous words, at several school grade levels.

There is a long history of attempts to study individuals' responses to words in isolation. Rowland (1907) presented words in isolation in different parts of speech and asked her one subject to introspect on "how her state of mind varied as she passed from the meaning of one word to the next," e.g., as she passed through the series entrance, enter, in, inner, or the series weight, lift, heavy, under. Psychologists have expended much effort in obtaining "free associations" to words in isolation, but they have paid little attention to the parts of speech in which either the stimulus words or the response words appeared (Cramer, 1968). It has been noted, however, that adults are more likely than children to respond with a word in the same part of speech as the stimulus word, a fact that may possibly indicate that adults are more aware of the part-of-speech classifications of the stimulus words. There has been little investigation of responses to stimulus words that are ambiguous with respect to part-of-speech. In two recent investigations of responses to homographic or homonymic words (Cramer, 1970; Galbraith and Taschman, 1969) no consideration was given to the grammatical classifications of the stimuli or the responses.

The present study will not use the free association technique, but rather a technique whereby the subject is asked to use a given word in a sentence. There is, of course, ample precedent for such a procedure in the common school practice of teachers. In psycholinguistic studies, it has been used quite frequently, e.g., by Ervin (1963), Faibish (1961), and Taylor (1969). The presumption is that the grammatical part of speech in which the word is used in a sentence will tend to indicate its "predominant" part of speech. Rosenzweig and McNeill (1962) noted that when a word is presented in isolation it is usually taken in the sense of its predominant meaning; it is reasonable to assume that it would also be usually taken in its "predominant" grammatical function.

The study was also designed to yield information that might have a bearing on the possibility that certain grammatical functions for a lexical item may be more basic to the description of that item than other grammatical functions that could be regarded as derived from the basic function. For example, "alert" is perhaps basically an adjective describing a certain state; in several dictionaries, at least, it is listed first as an adjective. The verb "alert" may be derived from this by a semantic transformation that means "cause to be X," and the noun "alert" is perhaps still a further derivation by a transformation that means "an occasion when one is caused to be X." Information on the grammatical functions of isolated words could be helpful in developing and evaluating theories having to do with such relations, although the assumption that the most frequent parsing of a word presented in isolation corresponds to the word's "basic" grammatical function would need careful examination.

Finally, the study was designed with the thought that psycholinguistic research, as well as various kinds of research in verbal learning, could profit from the availability of lists of grammatically ambiguous and unambiguous words with appended information on the parsings in which they are most frequently perceived. Researchers in these fields have often had need for such information (see, for example, Hall and Crown, 1970; Shapiro and Palermo, 1967; Taylor, 1969).

In summary, the problems investigated in this study were as follows:

(1) How frequently is it the case that words in English have multiple grammatical functions? What are some of these words, and what are some of the words that are unambiguous grammatically? In what grammatical functions are grammatically ambiguous words perceived most frequently when presented in isolation? To what extent is grammatical ambiguity associated with polysemy?

(2) To what extent does the school-age child have difficulty in understanding language because he does not know the meanings of words when they appear in their less frequent grammatical usages, or because he has not learned to interpret them in such usages? If so, is this because he is generally unaware that words may have the property of multiple grammatical uses, or is it simply because he has not experienced the unusual uses with sufficient frequency?

(3) What developmental trends are there in the ability to interpret the less frequent grammatical usages of words? How does this ability correlate with general verbal ability?

(4) What implications for linguistic and psycholinguistic theories can be drawn from the findings?

Hypotheses

(1) Words having multiple grammatical functions are quite frequent in the English language, both in terms of types and tokens. Multiple grammatical functions will occur somewhat more frequently among high-frequency than low-frequency words, but even low-frequency words will often exhibit multiple grammatical functions.

(2) School-age children will have more difficulty in understanding sentences in which certain words are used in relatively less frequent grammatical functions, than sentences in which these words appear in more frequent grammatical functions.

(3) There will be age-developmental trends in the ability to understand sentences containing words used in less frequent grammatical functions; these trends will also be correlated with general verbal ability as measured by a vocabulary test.

Related literature

The problems set forth above seem never to have been directly studied. Petty, Herold, and Stoll (1968) point out that investigations in the field of vocabulary teaching have paid little or no attention to grammatical factors. There are some studies (e.g., Hurlburt, 1954) that have investigated the relative difficulty of different parts of speech, but no studies have been found that have been concerned with the relative difficulty of different grammatical usages of single lexical items. Many investigations have had to do with children's knowledge of the multiple meanings of homophonous or homographic words (Berwick, 1952; Howards, 1964; Lovell, 1941; Russell, 1954; Russell and Saadeh, 1962; Thevaos, 1951) but these touch only indirectly on the problems of multiple grammatical functions. Detailed studies of children's difficulties in interpreting textual materials (e.g., Jenkinson, 1957) suggest that some of these difficulties may be due to children's inability to interpret words in unusual grammatical functions. This suggestion is also borne out by the common experience of classroom teachers.

On the other hand, there is some reason to think that when a given word carries the same basic semantic content in its various grammatical usages, children may have little difficulty in interpreting it in its various usages. Brown (1957) showed that even pre-school children have little difficulty in using grammatical context to determine part-of-speech class of a novel (nonsense) word; one might think, therefore, that school-age children would have little difficulty in interpreting novel grammatical functions of familiar words. An observation made by two investigators of child language acquisition may be relevant at this point:

"Richard's performance with parts of speech is also revealing. At first, he seemed to classify words into parts of speech in strict adherence to adults' models. For instance, of the 30 stems in our records which occurred with -ing at the age of 26-27 months, all are verbs in adult English. By 30 months, however, Richard began to use words in other parts-of-speech than he heard them. The best examples, as usual, are those in which differences from adult English make the process clear. At 30 months, he said something about an airplane which was 'loud,' then spoke the phrase 'a louding plane.' At 30 months he protested a vigorous scrubbing by saying, 'Don't wash that poor little sore, because it's still soring.' At 33 months he announced playfully, 'I'll stomach you,' and pushed his mother in the stomach" (Carlson and Anisfeld, 1969, p. 573).

Brown (1957) observed that in very early language acquisition, the nouns children learn are in most cases names of concrete things, and the verbs are mostly names for observable actions. The implicit meaning of the form-class noun for the young child is therefore apparently "concrete object" while the implicit meaning of the verb form-class is "action." Up to the age of 26-27 months, the child observed by Carlson and Anisfeld must have been adhering to these form-class meanings, but later, the form-class allegiances of words started to spread over several categories. Carlson and Anisfeld's observations suggest that one of the problems faced by the young child at a certain stage is to learn what restrictions adult language imposes on lexical items: for example, that adult language requires that loud be used as an adjective. By the time the child reaches school age it may be the case that he is still learning these restrictions, and it is even possible that his learning of the grammatical functions most frequently associated with certain lexical items goes so far as to prevent him from recognizing and properly interpreting unusual grammatical functions for those items. For example, the 3rd-grade child may no longer be able to appreciate the use of "louding" in "a louding plane." Likewise, he might not be able to interpret properly the use of a word like FREE as a verb after having learned that it is normally used as an adjective.

Thus, it may be said that the previous literature on the question of children's interpretations of words in unusual grammatical functions is almost nonexistent, and that what little literature there is is highly inconclusive.

Chapter II

Identification of MGF Words

Introduction

Before the central problems of this investigation could be attacked, it was necessary to develop lists of words that have multiple grammatical functions (MGF words). For certain purposes, it was also desirable to develop lists of words that are unambiguous as to grammatical function (UGF words). For the MGF words it was necessary to obtain data that would tell what the more frequent and less frequent grammatical functions are. This chapter reports how these lists were developed and what kinds of information were obtained for the MGF and UGF words that were identified.

Obtaining samples of MGF and UGF words

As far as this investigator was aware, no lists of MGF and UGF words were available in the literature of vocabulary studies, lexicography, or even computational linguistics. It was therefore necessary to develop lists for the special use of this project.

We could, of course, have developed lists by examining all the words in given frequency ranges of certain word-lists such as the Thorndike-Lorge frequency count (Thorndike and Lorge, 1944) or the recent Brown University count (Kučera and Francis, 1967), using dictionary information on the occurrence of various grammatical functions. The plan of the investigation called for the use of MGF and UGF words that would be appropriate over a fairly wide range of school grades--from grade 3 to grade 9. It was judged that the words to be used should range over the first ten thousand in frequency in Thorndike's (1932) earlier compilation. Examining ten thousand words for multiple grammatical functions would have been too large a task to accomplish within the time period planned for the investigation (in view of the other tasks that had to be performed). It was decided, however, to examine a 5% random sample of the first ten thousand words in frequency according to Thorndike's (1932) list. This earlier, 1932, list was used instead of the later, 1944, compilation that is better known, because unlike the latter it gives a rank-index, by thousands, for each word. Thus, a word listed with the rank-index "7" is one that appeared somewhere in ranks 6001-7000 in frequency in Thorndike's corpus. Rank-indices from 1 to 5 also are suffixed by the letters "a" or "b" to provide a further differentiation into groups of 500; thus, a word listed as having a rank-index of 3a was one that appeared among ranks 2001-2500 in Thorndike's compilation.

By random selection procedures, 50 words were chosen from each group of 1000 words by frequency in the Thorndike list. The procedures insured also that for the first 5000 words, 25 words would be chosen from each group of 500 words. There was, however, one constraint upon the random selection process: no proper names or otherwise capitalized words were chosen. Wherever such a word would have been chosen by the selection process, it was replaced with a noncapitalized word having the same rank-index. The list of 500 words so chosen is included in the tabulation in Appendix A. The list includes, of course, all varieties of words--nouns, verbs, adjectives, prepositions, etc., although the prime interest of this investigation was centered on grammatical ambiguities of words across the categories noun, verb, and adjective.

The writer and several research assistants then went through the list of 500 words to make an initial judgment as to their grammatical functions. For each word, a series of numbers was assigned (hereafter called an "MGF vector") to indicate the parts in ten (perdecems) into which the incidences of the word in four grammatical classifications were judged to fall: noun, *verb*, *adjective*, and *other*, respectively. Thus, the word LAST was assigned the MGF vector 1, 2, 6, 1 , meaning that the word was judged to occur as a noun about 10% of the time, a verb about 20% of the time, an adjective about 60% of the time, and "other" (adverb) about 10% of the time. Sometimes the numeral 1 was prefixed by a minus sign to indicate that the word was used very rarely in a particular grammatical function; for example, the word TAKE was assigned the MGF vector -1, 9, 0, 0 because it was thought to occur only very rarely as a noun.

A number of sources were used as guides in assigning the MGF vectors. Many of the words were looked up in the *Oxford English Dictionary* to find authority for various grammatical usages. The most helpful source was Lorge and Thorndike's (1938) semantic count, which gives frequencies (based on a corpus of about 4,500,000 tokens) for each meaning and grammatical function of a word, keyed to the entries in the *Oxford English Dictionary*. Another helpful source was West's (1953) *General Service List of English Words*, which gives information on grammatical and semantic frequencies of about 2000 words. West's frequencies (expressed in percentages) are mainly derived from Lorge and Thorndike's data, however, and are sometimes modified to reflect British (as opposed to American) usage. Nevertheless, in a number of instances the information in West served to complete what was missing from the Lorge and Thorndike semantic count. In the case of many words, however, neither Lorge-Thorndike nor West gave any useful information, and it was necessary to rely on the coder's native language intuitions. Generally, the two or three people who assigned the MGF vectors were able to arrive at a reasonable consensus. The MGF vectors assigned at this stage were regarded as only provisional, in any case; they were needed only in order to develop lists of UGF and MGF words for use in later studies that would, presumably, yield objective information concerning children's parsings of the words when presented in isolation.

Actually, it should be noted that the MGF vectors were continually revised during the course of the project. It was somewhat humbling to find that in the original assignment of the vectors certain fairly frequent usages of the words had simply been overlooked. For example, in the original coding, the word OFFENSIVE had been regarded as an unambiguous adjective (MGF vector 0, 0, 10, 0); the noun use had not been noted. It became evident that a word presented in isolation often exerts such a powerful stimulus-value in a certain direction that one fails to perceive another possible stimulus-value even though it might be one encountered fairly frequently in certain contexts.

There were certain other problems in the assignment of the MGF vectors. We were dealing only with the "entry" forms of the words--not (in general) with their plurals, possessives, past tenses, participles, or gerunds. It happened, however, that two of the words resulting from the sampling procedure were clearly not base forms even though they were entries in the Thorndike compilation: SENT and TOOK. For the purposes of the tabulation, these were changed to SEND and TAKE, respectively. A serious problem was the assessment of words that are normally nouns, like CITY, that can be used also as attributive adjectives, as in "a city block." Generally, such words were not counted as adjectives unless they could, in the adjective usage, denote a distinct quality, e.g., CHOCOLATE. Reference was made to several dictionaries in deciding cases like these, although it should be said that dictionaries do not seem to follow consistent rules for handling such cases.

After the words had been assigned MGF vectors, they were sorted into the following classes:

(1) Unambiguous nouns (N)

(2) Unambiguous verbs (V)

(3) Unambiguous adjectives (A)

(4) Ambiguous, either noun or verb (but not adjective) (NV)

(5) Ambiguous, either noun or adjective (but not verb) (NA)

(6) Ambiguous, either verb or adjective (but not noun) (VA)

(7) Ambiguous, either noun, verb, or adjective (NVA)

(8) Ambiguous, some combination of noun, verb, and/or adjective with another part of speech (N, V, A, O)

(9) Unambiguous "other" part of speech: preposition, conjunction, etc.

It was of interest to take these 500 words from the Thorndike list and tabulate them by frequency rank-index and the above grammatical classifications. The results of this tabulation are shown in Table 2.1. Several conclusions emerge from an inspection of this table:

(1) Grammatically ambiguous words are somewhat more likely to be found among words that are listed as being of high frequency. To some extent, this may be due to the well-known fact that words of high frequency are more likely to have multiple meanings.

(2) Grammatically unambiguous nouns increase in incidence as the frequency decreases (or as the rank-index increases), but the proportions of unambiguous verbs and adjectives remain fairly constant over the ten frequency groups.

(3) The most frequent class of ambiguous words is Noun-Verb (NV) words. The next most frequent is the Noun-Adjective class (NA), and there are relatively few words in the remaining ambiguous classes.

(4) About 43% of all the words sampled are grammatically ambiguous in the sense defined here. Presumably, this is a good estimate of the proportion of words in the first ten thousand of Thorndike's list that are grammatically ambiguous. It should be noted that this figure is based on types, not tokens. No estimate was made as to what the figure would be if it were based on tokens.

Table 2.1

Words in the Thorndike Sample, by Thorndike Frequency-Rank Index and Grammatical Ambiguity Classification*

(Cell Entries Are Frequencies)

	Unambiguous						Ambiguous							
Thorndike Frequency-Rank Index	N	V	A	Other	Total	%	N-V	N-A	V-A	N-V-A	N-V-A Other	Total	%	Total
1	4	3	2	5	14	28.	22	4	1	4	5	36	72.	50
2	7	3	5	1	16	32.	20	7	0	4	3	34	68.	50
3	13	6	4	1	24	48.	20	3	0	2	1	26	52.	50
4	17	5	4	1	27	54.	16	5	1	1	0	23	46.	50
5	12	9	7	0	28	56.	15	3	3	0	1	22	44.	50
6	14	7	6	0	27	54.	16	2	3	0	2	23	46.	50
7	18	8	5	0	31	62.	14	5	0	0	0	19	38.	50
8	16	8	16	0	40	80.	4	4	0	1	1	10	20.	50
9	25	8	6	0	39	78.	11	0	0	0	0	11	22.	50
10	23	9	7	1	40	80.	7	1	1	0	1	10	20.	50
Total	149	66	62	9	286		145	34	9	12	14	214		500
%	29.8	13.2	12.4	1.8		57.2	29.0	6.8	1.8	2.4	2.8		42.8	100.0

* Column heading abbreviations: N = Noun, V = Verb, A = Adjective.

All percentages are based on row totals.

Selection of a further sample

Inspecting the words contained in the Thorndike sample, we became convinced that this sample did not include a sufficient number of UGF and MGF words of relatively high frequency and familiarity to serve the purposes of the further studies that were planned. Many words in the fifth Thorndike thousand were judged to be somewhat difficult for 6th graders; a few were judged difficult even for 9th graders. It was decided that a large sample of words of relatively high frequency would be needed in order to select appropriate UGF and MGF words for subsequent phases of this investigation. This larger sample could, of course, have been obtained by further sampling from the Thorndike list. It was not obtained in this way because the writer learned of what seemed to be a better and more convenient source.

This source was a so-called Harvard Dictionary compiled by Philip Stone (personal communication; see Kelly, 1970) and his associates in the course of developing the General Inquirer procedure for content analysis (Stone, Dunphy, Smith, and Ogilvie, 1966). It consists of a list of 1178 words that occurred with frequencies of 10 or greater (i.e., $p \geq .000023$, $\log p \geq -4.634$) in a corpus of 430,397 words collected from 56 different sources from nine basic areas (conversational material, personal documents, dream reports, survey replies, TAT stories, literature, speeches, editorials, and folktales). Most of these words, then, could be regarded as being in adults' active vocabularies. The particular virtue of the list, however, was that (at least in the computer tape that was obtained from Dr. Stone) the frequencies of the several meanings and usages of the words, as coded by hand, were reported. From such information it became possible to estimate MGF vectors rather more accurately, we thought, than from the data in the Lorge Semantic Count or in West's General Service List, both of which were somewhat obsolete. The

Harvard Dictionary list, however, did not "parse" words into different grammatical functions unless their meanings deserved separate entries.

A research assistant worked through the complete Harvard Dictionary list to identify all words that could normally be used as nouns, verbs, or adjectives, whether or not they were ambiguous in grammatical function. This yielded a list of 768 such words (65.2% of the total list). These words were then classified as to grammatical ambiguity in the same manner as was the case for the Thorndike sample. An analysis of these words according to the Thorndike frequency rank-indices is shown in Table 2.2. It may be noted that the percentages of grammatically ambiguous and unambiguous words for the Harvard Dictionary sample follow the same general trends as for the Thorndike sample; the percentages, however, are not exactly comparable because the Harvard Dictionary sample excluded words that were not normally nouns, verbs, or adjectives.

It was found that 48 words occurred on both the Thorndike and the Harvard Dictionary lists. The combined list, analyzed in Table 2.3 according to the Thorndike rank-frequency indices and grammatical ambiguity classification, comprised 1220 words. It included 615 words that had been judged to be grammatically ambiguous, and since many of these were high-frequency words it was thought to provide an adequate sample of words that could be used in later phases of this investigation. The numbers of words available in certain grammatical ambiguity classifications, however, were still rather small. It appears that there are very few words in English whose entry forms can be used as either verbs or adjectives, for example.

Table 2.2

Words in the Harvard Dictionary Sample, by Thorndike Frequency-Rank Index and Grammatical Ambiguity Classification*

(Cell Entries Are Frequencies)

	Unambiguous					Ambiguous							
Thorndike Frequency-Rank Index	N	V	A	Total	%	N-V	N-A	V-A	N-V-A	N,V,A, Other	Total	%	Total
1	61	41	26	128	33.0	210	8	8	32	2	260	67.0	388
2	50	23	15	88	45.8	85	11	3	5	0	104	54.2	192
3	24	9	3	36	55.4	21	7	0	1	0	29	44.6	65
4	16	5	7	28	71.8	8	0	0	3	0	11	28.2	39
5	15	3	4	22	71.0	5	3	0	1	0	9	29.0	31
6	3	2	0	5	62.5	2	0	1	0	0	3	37.5	8
7	6	2	2	10	55.6	6	2	0	0	0	8	44.4	18
8	4	1	4	9	75.0	2	1	0	0	0	3	25.0	12
9-18	7	0	4	11	73.3	1	3	0	0	0	4	26.7	15
Total	186	86	65	337		340	35	12	42	2	431		768
%	24.2	11.2	8.5		43.9	44.3	4.6	1.6	5.5	0.3		56.1	100.0

* Column heading abbreviations: N = Noun, V = Verb, A = Adjective.

All percentages are based on row totals.

Table 2.3

Words in Combined Sample, by Thorndike Frequency-Rank Index and Grammatical Ambiguity Classification*

(Cell Entries Are Frequencies)

	Unambiguous						Ambiguous							
Thorndike Frequency-Rank Index	N	V	A	Other	Total	%	N-V	N-A	V-A	N-V-A	N,V,A, Other	Total	%	Total
1	63	42	27	5	137	33.1	218	10	9	34	6	277	66.9	414
2	57	24	16	1	98	42.6	103	16	3	7	3	132	57.4	230
3	36	15	7	1	59	53.2	40	8	0	3	1	52	46.8	111
4	33	10	11	1	55	61.8	24	5	1	4	0	34	38.2	89
5	25	12	10	0	47	60.8	20	6	3	1	1	31	39.7	78
6	17	9	6	0	32	55.2	18	2	4	0	2	26	44.8	58
7	22	10	7	0	39	60.1	18	7	0	0	0	25	39.9	64
8	20	9	19	0	48	78.7	6	5	0	1	1	13	21.3	61
9	28	8	7	0	43	79.6	11	0	0	0	0	11	20.4	54
10	23	9	8	1	41	80.4	7	1	1	0	1	10	19.6	51
11-18	4	0	2	0	6	60.0	1	3	0	0	0	4	40.0	10
Total	328	148	120	9	605		466	63	21	50	15	615		1220
%	26.9	12.1	9.8	0.7		49.6	38.2	5.2	1.7	4.1	1.2		50.4	100.0

* Column heading abbreviations: N = Noun, V = Verb, A = Adjective.

All percentages are based on row totals.

Dale classifications

Various other kinds of information were developed for the final list of 1220 words, but only after the studies reported in Chapters III, IV, and V were already in progress. These types of information, therefore, could be used only in helping to interpret the results of those studies.

One type of information was represented by what were called "Dale ratings." Dale (1948) compiled a list of approximately 3000 words that he found to be known in reading by at least 80% of children in grade 4. Such words were assigned a Dale rating of "1." Later, Dale and Eichholz (undated) published an interim report on children's knowledge of words at grades 4, 6, 8, 10, and 12. Their lists were developed on the basis of vocabulary tests that were given to representative samples of children at these grade levels. "Dale ratings" of 2, 3, 4, 5, and 6 were assigned on the basis of the grade placement of the words, according to the key given below. However, it was found that many words appeared on several grade-lists, often because different meanings of the words were tested at the different grade levels. For our purposes, the ratings were assigned according to the grade level at which the word first appeared in any meaning and was known by 67% or better at that level. Some words were not found on any of Dale's lists, or if they were found, were known by fewer than 2/3 of the children in grade 12. The key for the "Dale ratings" is therefore as follows:

1 : The word occurs on Dale's (1948) list of approximately 3000 words known in reading by at least 80% of children in grade 4.

2 : At least one meaning of the word is known by at least 2/3 of children in grade 4, according to Dale and Eichholz (undated).

3 : At least one meaning of the word is known by at least 2/3 of children in grade 6.

4 : At least one meaning of the word is known by at least 2/3 of children in grade 8.

5 : At least one meaning of the word is known by at least 2/3 of children in grade 10.

6 : At least one meaning of the word is known by at least 2/3 of children in grade 12.

7 : The word does not appear on any of Dale's lists, or there is no meaning for the word that is known by as many as 2/3 of children in grade 12.

Table 2.4 presents a cross-classification of the words in the final sample by Thorndike frequency-rank index and Dale classification. The relation between Thorndike frequency-rank indices and Dale ratings is only moderate.

Coding of MGF words for polysemy ("semantic code")

It was anticipated that children's parsings of MGF words might be related to the degree of polysemy (multiple meaning) of these words. Therefore, the following codes were assigned:

0 : This code was assigned to all UGF words since there was no interest in this study in the possible polysemy of these words.

1 : This code was assigned to MGF words which were regarded as having fundamentally the same (one) meaning in the two or more parts of speech. Examples: AGE (NV), CHANCE (NVA), FILL (NV), FREE (NV), GRADUATE (NVA), HIRE (NV), SORROW (NV), TAKE (NV).

2 : Assigned to MGF words having two or more basic senses, each of which participates in the respective grammatical manifestations. Examples: PAGE (NV), TYPE (NV).

3 : Assigned to MGF words with multiple senses that are differentially

Table 2.4

Cross-Classification of Words in the Final Sample by

Thorndike Frequency-Rank Index and Dale Rating

Thorndike Frequency-Rank Index	Dale Rating							Total
	1	2	3	4	5	6	7	
1	396	6	14	4	0	0	1	421
2	137	15	58	15	2	2	4	233
3	42	11	43	11	1	0	1	109
4	24	11	32	17	5	1	0	90
5	11	11	33	12	3	3	5	78
6	9	3	26	7	4	2	7	58
7	5	7	18	14	11	2	7	64
8	3	5	17	16	11	1	8	61
9	4	3	12	8	6	3	18	54
10	1	3	11	4	10	9	13	51
11-18	1	0	2	0	1	3	3	10
Total	633	75	266	108	54	26	67	1229*

*This number includes nine further words derived from words in the basic sample.

distributed among grammatical parts of speech. For example, PLANE (NVA) has the meaning "flat, level" as a noun, verb, and adjective, and the meaning "tool for smoothing" as a noun or a verb. Other examples: CARDINAL, GAME, INCENSE, KNOT, LINE, PLANK, PRIMARY, SEASON, SWAMP.

4 : Assigned to MGF words in which the different senses occur exclusively in different parts of speech. For example, GRAVE (NA) has the meaning "burial place" as a noun, but the meaning "serious" as an adjective. Other examples: NOVEL, PRIVATE, SKIRT, TARRY, UNIFORM.

It was often difficult to decide upon this semantic coding. For purposes of analysis, it is probable that codes 2, 3, and 4 should be grouped.

The Dale ratings and semantic codes assigned to the words in the final sample will be found in the tabulation in Appendix A. They will also be found in various tables discussed in Chapters III, IV, and V.

Chapter III

A Pilot Experiment on a Possible Priming Effect in the Grammatical Perception of Words Presented in Isolation

Introduction

The basic plan of the first phase of this study called for obtaining information on the grammatical functions that children perceive in grammatically ambiguous words presented in isolation. The technique to be employed was that of asking children to use a given word in one or more sentences. It seemed reasonable to assume that the part of speech in which a word is most "naturally" perceived when presented in isolation would be reflected in the part of speech in which it is used in the first sentence written by a respondent when he is asked to write one or more sentences illustrating the use or uses of the word. It was believed further that by inspection of the sentences written by the respondent, it would in most cases be possible to determine in what part of speech the word was in fact used. Data on the relative frequency with which samples of children at several grade levels used a word in various parts of speech would presumably yield norms for use in later phases of the study.

There was, however, a prior question to be answered before further studies could be made. If a respondent were given a series of isolated words, would the part of speech in which he used a given word be influenced by the part of speech he used for a preceding word? That is, would his part-of-speech use for word _i_ create some sort of set that would partly determine his part-of-speech use for word (_i_ + 1)? If so, the collection of data on any large number of words presented sequentially would require control of the order in which the words were given, possibly by some procedure of counterbalancing or randomization. There is some evidence in the free association literature (Cramer, 1968, Chapter 2) that the type of association given to a certain word is influenced by the nature of the words immediately preceding the word in a list. For example, Wynne, Gerjuoy, and Schiffman (1965) reported that the presentation of stimulus words likely to elicit antonym responses could induce sets that influenced the responses given to succeeding words in the list. A similar "priming" effect might occur in connection with the parsing behavior being studied here.

In order to answer this question, as well as to explore the technique of data collection that was proposed, a pilot experiment was conducted in which the presentation of each grammatically ambiguous (MGF) word was preceded by the presentation of a grammatically unambiguous (UGF) word that would almost surely be perceived in a designated part of speech--a noun, a verb, or an adjective. Thus, if there were any priming effect, the part of speech in which the MGF word was used would tend to vary according to whether it was preceded by a grammatically unambiguous noun, verb, or adjective.

Method

From the compilations of grammatically ambiguous words described in Chapter II, four sets of 9 words each were selected, a total of 36 words. The plan called for selecting the first set from Thorndike (1932) frequency-rank categories 1 and 2, the second set from categories 3 and 4, the third set from categories 5 and 6, and the fourth set from categories 7 and 8. However, several minor deviations from this plan had to be permitted in order to select a sufficient number of words for each set in view of the further constraints that were placed upon the selection. Each set was to contain 3 NV words, 3 NA words, and 3 VA words. Furthermore, each set was to contain one with a high MGF rating for the first part of speech and a low rating for the second part of speech, a second with the opposite of this condition, and a third with approximately equal MGF ratings for the two parts of speech. For example, the three NV (noun-verb) words selected at Level I (Thorndike indices of 1 or 2) were BLOSSOM (MGF vector 8 2 0), JUMP (MGF vector 2 8 0), and GLANCE (MGF vector 6 4 0). The purpose was to see whether the priming effect, if any, would be stronger when the MGF ratings were approximately equal.

For each set of nine MGF words, nine UGF words were identified in the compilations with Thorndike indices approximately matched with those of the MGF words; of these, three were nouns, three were verbs, and three were adjectives.

Three alternate test forms were then constructed for each of the four levels (a total of 12 forms) by assigning the UGF words to odd-numbered positions and the MGF words to even-numbered positions. The MGF words were the same and had constant positions in the three forms for a given level. The UGF words, however, were distributed among the three forms in different random orders in such a way that for a given form, there were 3 N words, 3 V words, and 3 A words in the odd-numbered positions, and also such that across the three forms, each MGF word was preceded by a noun in one form, a verb in a second form, and an adjective in a third form. Table 3.1 gives the complete structure of the 12 forms, with the MGF vectors and Thorndike frequency-rank indices indicated for each word used.

Each test form had a cover page giving instructions; the same cover page was used for all 12 forms. (A sample form is shown in Appendix B). The instructions read as follows:

"We want to find out how you and others in your grade use certain words."

"Look at each word and make up a short, complete sentence that shows how you might use it. Write the first sentence that you think of."

"Then, if you can think of other ways to use the word, write one or two more sentences."

Table 3.1

MGF and UGF Words Used in the First Pilot Experiment, with Grammatical Classification, MGF Vector, and Thorndike Frequency-Rank Index

Level I

Item No.	UGF Word (Odd-Numbered Items)			MGF Word (Even-Numbered Items, All Forms)
	Form A	Form B	Form C	
1,2	COUNTRY (N, 10 0 0, 1a)	REAL (A, 0 0 10, 1b)	SEND (V, 0 10 0, 1a)	SAVAGE (NA, 4 0 6, 2b)
3,4	SEND (V, 0 10 0, 1a)	HONEST (A, 0 0 10, 2a)	COUSIN (N, 10 0 0, 2a)	LIVE (VA, 0 9 1, 1a)
5,6	COUSIN (N, 10 0 0, 2a)	SEND (V, 0 10 0, 1a)	AFRAID (A, 0 0 10, 1b)	BLOSSOM (NV, 8 2 0, 2a)
7,8	REAL (A, 0 0 10, 1b)	COUSIN (N, 10 0 0, 2a)	EXPLAIN (V, 0 10 0, 2a)	GENERAL (NA, 1 0 9, 1a)
9,10	ENTER (V, 0 10 0, 1b)	AFRAID (A, 0 0 10, 1b)	COUNTRY (N, 10 0 0, 1a)	FREE (VA, 0 1 9, 1a)
11,12	EXPLAIN (V, 0 10 0, 2a)	COUNTRY (N, 10 0 0, 1a)	HONEST (A, 0 0 10, 2a)	GLANCE (NV, 6 4 0, 2b)
13,14	HONEST (A, 0 0 10, 2a)	PRINCE (N, 10 0 0, 1b)	ENTER (V, 0 10 0, 1b)	INSTANT (NA, 9 0 1, 2b)
15,16	AFRAID (A, 0 0 10, 1b)	ENTER (V, 0 10 0, 1b)	PRINCE (N, 10 0 0, 1b)	DIRECT (VA, 0 6 4, 1b)
17,18	PRINCE (N, 10 0 0, 1b)	EXPLAIN (V, 0 10 0, 2a)	REAL (A, 0 0 10, 1b)	JUMP (NV, 2 8 0, 2a)

Table 3.1 (continued)

Level II

Item No.	UGF Word (Odd-Numbered Items)			MGF Word (Even-Numbered Items, All Forms)
	Form A	Form B	Form C	
1,2	CAMEL (N, 10 0 0, 4b)	DESPERATE (A, 0 0 10, 4a)	ARISE (V, 0 10 0, 3a)	ELDER (NA, 2 0 8, 3b)
3,4	ARISE (V, 0 10 0, 3a)	PERSONAL (NA, -1 0 9, 3b)**	OVEN (N, 10 0 0, 3b)	SPARE (VA, 0 8 2, 2a)
5,6	OVEN (N, 10 0 0, 3b)	ARISE (V, 0 10 0, 3a)	RAINY (A, 0 0 10, 4a)	SCREEN (NV, 9 1 0, 4a)
7,8	DESPERATE (A, 0 0 10, 4a)	OVEN (N, 10 0 0, 3b)	SOFTEN (V, 0 10 0, 4b)	MORAL (NA, 1 0 9, 3a)
9,10	ORGANIZE (V, 0 10 0, 4b)	RAINY (A, 0 0 10, 4a)	CAMEL (N, 10 0 0, 4b)	LAST (NVA, 1 2 7, 1a)
11,12	SOFTEN (V, 0 10 0, 4b)	CAMEL (N, 10 0 0, 4b)	PERSONAL (NA, -1 0 9, 3b)**	WAX (NV, 4 6 0, 3a)
13,14	PERSONAL (NA, -1 0 9, 3b)**	LANTERN (N, 10 0 0, 4b)	ORGANIZE (V, 0 10 0, 4b)	INDIVIDUAL (NA, 7 0 3, 3a)
15,16	RAINY (A, 0 0 10, 4a)	ORGANIZE (V, 0 10 0, 4b)	LANTERN (N, 10 0 0, 4b)	MATURE (VA, 0 5 5, 4a)
17,18	LANTERN (N, 10 0 0, 4b)	SOFTEN (V, 0 10 0, 4b)	DESPERATE (A, 0 0 10, 4a)	DIP (NV, 2 8 0, 3a)

**In an early compilation of the MGF words, PERSONAL had been regarded as an unambiguous adjective; after this pilot study was done, it was realized that it could also be regarded as a noun (meaning "a personal item as in a newspaper"), though with low frequency.

Table 3.1 (continued)

Level III

Item No.	UGF Word (Odd-Numbered Items)			MGF Word (Even-Numbered Items, All Forms)
	Form A	Form B	Form C	
1,2	RAINFALL (N, 10 0 0, 6)	ABSURD (A, 0 0 10, 6)	DISTRIBUTE (V, 0 10 0, 5a)	OFFICIAL (NA, 5 0 5, 3a)
3,4	DISTRIBUTE (V, 0 10 0, 5a)	LONESOME (A, 0 0 10, 5a)	ORCHESTRA (N, 10 0 0, 5b)	ANIMATE (VA, 0 9 1, 6)
5,6	ORCHESTRA (N, 10 0 0, 5b)	DISTRIBUTE (V, 0 10 0, 5a)	UNDISTURBED (A, 0 0 10, 6)	CHART (NV, 9 1 0, 5b)
7,8	ABSURD (A, 0 0 10, 6)	ORCHESTRA (N, 10 0 0, 5b)	RENOUNCE (V, 0 10 0, 5a)	PRIMARY (NA, 1 0 9, 5b)
9,10	WEAKEN (V, 0 10 0, 6)	UNDISTURBED (A, 0 0 10, 6)	RAINFALL (N, 10 0 0, 6)	DIZZY (VA, 0 1 9, 6)
11,12	RENOUNCE (V, 0 10 0, 5a)	RAINFALL (N, 10 0 0, 6)	LONESOME (A, 0 0 10, 5a)	CHISEL (NV, 4 6 0, 6)
13,14	LONESOME (A, 0 0 10, 5a)	COMPETITION (N, 10 0 0, 6)	WEAKEN (V, 0 10 0, 6)	CARDINAL (NA, 7 0 3, 6)
15,16	UNDISTURBED (A, 0 0 10, 6)	WEAKEN (V, 0 10 0, 6)	COMPETITION (N, 10 0 0, 6)	LIMP (VA, 0 4 6, 5b)
17,18	COMPETITION (N, 10 0 0, 6)	RENOUNCE (V, 0 10 0, 5a)	ABSURD (A, 0 0 10, 6)	DAZZLE (NV, 1 9 0, 5a)

Table 3.1 (continued)

Level IV

Item No.	UGF Word (Odd-Numbered Items)			MGF Word (Even-Numbered Items, All Forms)
	Form A	Form B	Form C	
1,2	LIMITATION (N, 10 0 0, 8)	CHILLY (A, 0 0 10, 8)	PREDICT (V, 0 10 0, 7)	PENITENT (NA, 4 0 6, 7)
3,4	PREDICT (V, 0 10 0, 7)	FRAGILE (A, 0 0 10, 8)	TURPENTINE (N, 10 0 0, 7)	TARRY (VA, 0 9 1, 5A)
5,6	TURPENTINE (N, 10 0 0, 7)	PREDICT (V, 0 10 0, 7)	DURABLE (A, 0 0 10, 7)	BADGER (NV, 9 1 0, 7)
7,8	CHILLY (A, 0 0 10, 8)	TURPENTINE (N, 10 0 0, 7)	SHELVE (V, 0 10 0, 7)	RADICAL (NA, -1 0 9, 7)
9,10	ENCIRCLE (V, 0 10 0, 8)	DURABLE (A, 0 0 10, 7)	LIMITATION (N, 10 0 0, 8)	TIDY (VA, 0 1 9, 10)
11,12	SHELVE (V, 0 10 0, 7)	LIMITATION (N, 10 0 0, 8)	FRAGILE (A, 0 0 10, 8)	TINGE (NV, 6 4 0, 8)
13,14	FRAGILE (A, 0 0 10, 8)	BURNER (N, 10 0 0, 8)	ENCIRCLE (V, 0 10 0, 8)	EPIDEMIC (NA, 8 0 2, 8)
15,16	DURABLE (A, 0 0 10, 7)	ENCIRCLE (V, 0 10 0, 8)	BURNER (N, 10 0 0, 8)	EXEMPT (VA, 0 5 5, 6)
17,18	BURNER (N, 10 0 0, 8)	SHELVE (V, 0 10 0, 7)	CHILLY (A, 0 0 10, 8)	HUDDLE (NV, 9 1 0, 7)

These instructions were followed by four examples, three of them filled out and the fourth presented for the child to try for himself. The first example utilized the UGF word ASHORE, and only one sentence was given as an illustration. The second and third examples used the MGF words CAMP and LEAN; the illustrative sentences used CAMP first as a noun and then as a verb, and LEAN first as a verb and then as an adjective. CAMP was chosen for an example because it carries the same basic meaning in both noun and verb forms, while LEAN was chosen because the verb sense is quite different from the adjective sense. CROSS was chosen as an example for the child to try for himself because it exhibits considerable polysemy; it is an NVA word in which both same and different meanings occur across grammatical parts of speech. The purpose of the instructions was to suggest, but only by implication, that the several sentences that could be given might exemplify not only different meanings of a word but also different parts of speech.

The reason for asking the subjects to give more than one sentence, if they could think of more than one way to use the word, was to see to what extent they might tend to use the word in different grammatical functions. At the same time, it was thought that the part of speech used in the first sentence the child gave would indicate what part of speech was most potent in his perception of the word.

The test forms were printed and the responses were to be written. The stimulus words were presented in "all caps." (This proved to be a mistake since it was not intended that the words be interpreted in capitalized form, as some of them were, e.g., General with the name of a general, or Camel as the name of a brand of cigarettes.) There were no instructions as to whether the illustrative sentences could or could not contain derivational forms (plurals, third person singulars, past tenses, etc.) because it was thought that such instructions might place undue constraint on perceiving a word and generating a sentence illustrating its use. One of the examples, in fact, used LEAN in the form LEANED.

The test forms were administered to class groups with no time limits. In general, two test forms were administered to every child, and at least one test form was completed by every child. Average completion time per test was approximately 15 minutes; within 20 minutes, over 90 percent of the respondents were able to finish a given test form. It should be noted, however, that the test required the student to write only 18 sentences. He could write more sentences if he could think of "other ways" to use a given word beyond his first sentence. Actually, many pupils wrote only one sentence for the majority of the words.

The testing was introduced as part of an experimental project ("We want to find out how you and others in your grade use certain words"). Respondents were not asked to write their names on the test forms, and there was no record of the sex or age of the child. Instructions on the cover page were read aloud to the students, the sample items were discussed, and any questions raised were answered in a way that would not reveal the true purpose of the test.

Subjects

The forms were administered to a total of 243 pupils in grades 3, 6, and 9 in the Princeton (N.J.) Day School and in grade 6 in a public school in the Philadelphia school system. Table 3.2 shows the numbers of pupils taking each form at each level. The plan was to give as many forms (levels) to each pupil as he could complete within a class period. Since class periods varied in length for different schools and different grade levels, and since pupils took different amounts of time, the number of forms completed by the

Table 3.2

Numbers of Pupils Receiving Each Level and Form at Each of Two Schools, Princeton Day School (P.D.S.) and a Philadelphia School

		Form											
		A			B			C			Total		
		PDS	Phil.	Tot.	PDS	Phil.	Tot.	PDS	Phil.	Tot.	PDS	Phil.	Tot.
Level I	3*	9	-	9	9	-	9	11	-	11	29	-	29*
	6	24	2	26	25	6	31	24	6	30	73	14	87
	Total	33	2	35	34	6	40	35	6	41	102	14	116
II	3	10	-	10	10	-	10	8	-	8	28	-	28
	6*	26	17	43	27	18	45	25	19	44	78	54	132*
	9	28	-	28	24	-	24	26	-	26	78	-	78
	Total	64	17	81	61	18	79	59	19	78	184	54	238
III	6	24	19	43	26	16	42	28	17	45	78	52	130
	9*	29	-	29	27	-	27	26	-	26	82	-	82*
	Total	53	19	72	53	16	69	54	17	71	160	52	212
IV	6	15	-	15	14	-	14	17	-	17	46	-	46
	9	27	-	27	27	-	27	28	-	28	82	-	82
	Total	42	-	42	41	-	41	45	-	45	128	-	128

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*Grade 3 received Level I forms first; grade 6 received Level II forms first; and grade 9 received Level III forms first. Thus, the totals (29, 132, and 82 respectively) represent the basic numbers of cases employed at each grade, summing to N = 243.

pupils varied. The test booklets were passed out in prearranged order by form (A, B, C, A, B, C,.....) so that the forms were in effect distributed to random thirds of each class group. The first level given to grade 3 was Level I, to grade 6, II, and to grade 9, III. After a pupil completed his first test booklet, he handed it in and was given a second booklet. The second form-level given to grade 3 pupils was II, to grade 6 pupils, III, and to grade 9 pupils, IV. In grade 9 at the Princeton Day School, sufficient time was available to give most of the pupils a third form-level, namely Level II. In this way it was possible to obtain data on the several levels at several different grades in order to trace developmental trends. It would have been unproductive, however, to give the higher levels to the lower grades since those levels would have been too difficult for the lower grades.

Princeton Day School is a private school whose pupils tend to be selected from upper middle and upper socioeconomic classes; in contrast, the school at which tests were given in the Philadelphia area drew pupils from lower middle and lower socioeconomic classes, and had a high percentage of black students. Unfortunately, it was possible to obtain data only from 6th grade classes in Philadelphia, with Levels I, II, and III.

Scoring of responses

All responses (both to UGF and MGF words) were scored independently by two research assistants. The relatively few discrepancies were resolved in discussion between these two and Dr. Joanna Williams, a Visiting Research Associate.

The responses were classified into the following types:

N Noun (including plurals and possessive forms)

V Verb (including third person singular and past tense forms)

A Adjective (including comparatives and superlatives in -er, -est)

Adv	Adverb
*	Other (prepositions, conjunctions, etc.)
PresP	Present Participle (later combined with verbs)
PPA	Past Participle (later combined with verbs)
G	Gerund (later combined with verbs)
NS	Uninterpretable (for example, a sentence like "I saw a flower blossom" in which the part of speech of *blossom* is ambiguous)
T	"Illegal" transformation of the word to another part of speech, e.g., adding *-ly*, *-ness*, *-tion*, or some other derivational form
D	Meaning of the word not understood by the respondent (often resulting in grammatical misuse of the word), e.g., interpreting SPARE as if it were SPEAR
I	Improper use of form, even when correct meaning is implied, e.g., "I am so old that I am getting *elder*."
/N/	Definition sentence in which the word is used in citation form, thus giving no indication as to its part-of-speech use, e.g., "What does *penitent* mean?"

Some of the respondents used certain words in titles or as brand names. GENERAL and PRINCE when used as a part of a title were scored as nouns ("General MacArthur," "Prince Philip," etc.). "CAMEL" as the name of a brand of cigarettes was scored always as a noun, whether or not it was followed by the word "cigarette." Other words in titles were scored according to the way the word is used in the title; e.g., FREE in the title of the movie "Born Free" was scored as an adjective; DIZZY as the title of a popular record was scored as an adjective because the word appears so in the lyrics ("I'm so dizzy").

In a number of cases, it was decided to score attributive nouns as adjectives, e.g., SCREEN in "screen door," WAX in "wax candle."

RESULTS

The success of this experiment depended in part on the extent to which the responses were complete, at least for the first sentence that was to be written. Each respondent's paper was scored for the number of sentences written as the first response to the stimulus items; Table 3.3 shows the mean and standard deviation of this score for each level, grade, and form. The maximum possible value of this score was 18. The variation in the means reflects the varying difficulties of the test-form levels in relation to the grade levels. To some slight extent it may reflect the fact that some forms were given second, with the consequence that a few students were not able to finish within the time available. It may also reflect some variation in the overall ability of the samples, the students at Princeton Day School being judged to be on the average more able than those at the Philadelphia schools where testing was done. On the whole, however, the data were relatively complete. The overall percentage of attempts was 91.1% for Level 1 data, 92.3% for Level 2, 87.6% for Level 3, and 84.7% for Level 4. There were no significant differences among forms at a given level and grade, but performance varied significantly over grades except in the case of Level 1 between grades 3 and 6.

Not all the sentences written represented "valid" uses of the stimulus words, however. In the analyses to follow, only those responses were counted as valid that used the stimulus words in legitimate ways as nouns, verbs, or adjectives.[1] The "valid" verb responses included uses as present or past participles, or gerunds. Responses coded as NS (Uninterpretable), T ("Illegal transformation" to other parts of speech by the use of derivational suffixes and the like), D ("Meaning not understood"), I ("Improper use of form"),

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[1] A few words elicited were used as adverbs, e.g., LAST. Such responses were rare, however, and for the purposes of this experiment such responses were discounted, i.e., considered as "invalid."

Table 3.3

Number of Items Attempted (with "18th Sentence" Written)

Level	Grade	N	Form A		Form B		Form C		All Forms		% Completed
			$\overline{X}$	σ	$\overline{X}$	σ	$\overline{X}$	σ	$\overline{X}$	σ	
1	3*	29	16.78	1.40	17.44	0.68	16.27	2.38	16.79	1.77	F=1.05 n.s.
	6	87	16.42	3.34	15.97	4.17	16.43	3.36	16.26	3.67	F= .15 n.s.
	Total	116							16.40	3.31	91.1
									$F_{1,118}$	= 0.55	n.s.
2	3	28	14.20	2.18	13.30	3.23	12.87	3.95	13.50	3.19	F=.38 n.s.
	6*	132	17.60	1.06	17.76	0.60	17.57	1.01	17.64	0.91	F=.52 n.s.
	9	78	16.14	3.06	14.92	4.00	15.92	3.51	16.00	3.52	F=.03 n.s.
	Total	238							16.62	2.75	92.3
									$F_{2,35}$	= 38.1	$p < .001$
3	6	130	14.05	5.34	15.00	4.04	14.36	4.39	14.46	4.64	F=.46 n.s.
	9*	82	17.83	0.46	17.89	0.31	17.85	0.36	17.85	0.39	F=.18 n.s.
	Total	212							15.78	4.00	87.6
									$F_{1,210}$	= 43.20	$p < .001$
4	6	46	12.27	4.30	11.53	4.46	13.07	4.79	12.34	4.58	F=.42 n.s.
	9	82	16.93	1.36	16.78	1.50	16.96	1.21	16.89	1.36	F=.14 n.s.
	Total	128							15.26	3.67	84.7
									$F_{1,126}$	= 68.9	$p < .001$

*First level given at these grades.

/N/ ("Definition sentence"), or 0 (No response) were considered "invalid."

It is of interest to consider, first, the extent to which "valid" first sentences were written for the UGF words. The validity of the experiment itself depended on how well the subjects responded to the UGF words and the extent to which they used these words in the expected parts of speech, since to the extent that they did not respond to the UGF words according to expectation, there would be no possibility of a priming effect. Table 3.4 presents the relevant data. The first three columns of this table show the percentages with which the students gave valid sentences using the stimulus words. The variation in percentages reflects not only the types of variation mentioned above (the order in which the forms were given, and the varying composition of the samples), but also the relative difficulty of the words. Most of the words were responded to in a valid way by a large majority of the students at a given grade level, but a few were of considerable difficulty. Words that were validly employed in sentences by fewer than 2/3 of the students at a given grade level were the following: DESPERATE, ORGANIZE, PERSONAL, and RENOUNCE at grade 3; and ABSURD, RENOUNCE, BURNER, and LIMITATION at grade 6. In general these findings are in agreement with the Dale ratings.

The final three columns of Table 3.3 show the percentages with which the UGF words were used in the three designated parts of speech, noun, verb, and adjective, as represented in the codings. In nearly every case, the stimulus word was used in the expected part of speech. It is probable that a few nonzero percentages that are nevertheless close to zero represent coder error. The only words for which there seem to be significant departures from the expected part-of-speech use are BURNER, coded in 9.8% of the valid instances as an adjective, and SHELVE, expected to be used as a verb but actually used in 65.1% of the valid responses at Level 4 as a noun in the form

Table 3.4

"First Sentence" Responses to Grammatically Unambiguous (UGF) Words

Level I

Word	Th.	Dale	Percent Valid Responses Gr.3* (N=29)	Gr.6 (N=87)	Gr.9	Combined (N=116)	No. Valid Responses	Part of Speech (Percent) Noun	Vb.	Adj.
AFRAID	1b	1	96.5	90.8	--	92.2	107	0.9	--	99.1
COUNTRY	1a	1	100.0	93.1	--	94.8	110	98.2	0.9	0.9
COUSIN	2a	1	86.2	97.7	--	94.8	110	99.1	0.9	--
ENTER	1b	1	96.5	84.7	--	87.1	101	--	100.0	--
EXPLAIN	2a	1	89.7	86.2	--	87.1	101	--	100.0	--
HONEST	2a	1	86.2	87.4	--	87.1	101	--	--	100.0
PRINCE	1b	1	93.1	79.3	--	82.7	96	100.0	--	--
REAL	1b	1	100.0	83.9	--	87.9	102	--	--	100.0
SEND	1a	1	100.0	98.8	--	99.1	115	0.9	99.1	--

Level II

Word	Th.	Dale	Gr.3 (N=28)	Gr.6* (N=132)	Gr.9 (N=78)	Combined (N=238)	No. Valid Responses	Part of Speech (Percent) Noun	Vb.	Adj.
ARISE	3a	1	67.9	91.7	89.7	88.2	210	0.5	98.5	1.0
CAMEL	4b	1	96.4	100.0	92.3	97.1	231	97.8	--	2.2
DESPERATE	4a	5	60.7	89.4	85.9	84.9	202	--	--	100.0
LANTERN	4b	1	82.1	99.2	78.2	90.3	215	100.0	--	--
OVEN	3b	1	100.0	99.2	98.7	99.2	236	98.3	0.4	1.3
ORGANIZE	4b	3	60.7	90.9	74.4	81.9	195	1.0	99.0	--
PERSONAL	3b	3	60.7	93.2	87.2	87.4	208	1.0	--	99.0
RAINY	4a	1	96.4	99.2	87.2	95.0	226	0.9	--	99.1
SOFTEN	4b	2	60.7	94.7	80.8	86.1	205	1.0	--	99.0

*First level given at these grades.

Table 3.4 (continued)

Level III

Percent Valid Responses

Word	Th.	Dale	Gr.3	Gr.6 (N=130)	Gr.9* (N=82)	Com-bined (N=212)	No. Valid Responses	Part of Speech (Percent)		
								Noun	Vb.	Adj.
ABSURD	6	5	--	62.3	98.8	76.4	162	--	--	100.0
COMPETITION	6	4	--	73.1	98.8	83.0	176	100.0	--	--
DISTRIBUTE	5a	7	--	90.0	97.6	92.9	197	0.5	99.5	--
LONESOME	5a	1	--	86.9	100.0	92.0	195	--	--	100.0
ORCHESTRA	5b	3	--	93.8	97.6	95.3	202	100.0	--	--
RAINFALL	6	4	--	88.5	100.0	92.9	197	99.0	1.0	--
RENOUNCE	5a	7	--	46.2	78.0	58.5	124	--	100.0	--
UNDISTURBED	6	4	--	77.7	100.0	86.3	183	--	--	100.0
WEAKEN	6	1	--	75.4	93.9	82.5	175	--	100.0	--

Level IV

Word	Th.	Dale	Gr.3	Gr.6 (N=46)	Gr.9 (N=82)	Com-bined (N=128)	No. Valid Responses	Part of Speech (Percent)		
								Noun	Vb.	Adj.
BURNER	8	2	--	65.2	100.0	87.5	112	90.2	--	9.8
CHILLY	8	1	--	76.1	92.7	86.7	111	--	--	100.0
DURABLE	7	4	--	78.3	96.3	89.8	115	--	--	100.0
ENCIRCLE	8	3	--	71.7	96.3	87.5	112	--	100.0	--
FRAGILE	8	3	--	80.4	97.6	91.4	117	--	--	100.0
LIMITATION	8	4	--	45.6	96.3	78.1	100	98.0	--	2.0
PREDICT	7	4	--	91.3	87.8	89.1	114	0.9	99.1	--
SHELVE	7	7	--	73.9	87.8	82.8	106	65.1	34.9	--
TURPENTINE	7	3	--	89.1	98.8	95.3	122	98.4	0.8	0.8

*First level given at this grade.

SHELVES (plural). In the main, subjects responded to the UGF words in the manner in which they were expected to respond to them; at least it may be said that they responded to them sufficiently in accordance with expectation to validate the design of the experiment, which assumed that they would in fact respond to the UGF words in the anticipated parts of speech.

Table 3.5 gives data on the extent to which the subjects responded validly to the MGF words, i.e., wrote "first sentences" using these words in legitimate ways. One has the impression that the students had more difficulty in responding to MGF words than to UGF words. Words validly used by fewer than 2/3 of the students at a given grade level were as follows: SAVAGE, MORAL, INDIVIDUAL, and MATURE, at grade 3; ANIMATE, DAZZLE, PENITENT, TARRY, RADICAL, TINGE, EPIDEMIC, EXEMPT, and HUDDLE at grade 6; and ANIMATE, PENITENT, and TINGE at grade 9. One hesitates to draw the conclusion, however, that MGF words are in general more difficult to put into sentences than UGF words of comparable frequency, because the samples of UGF and MGF words used in this experiment were too small and too poorly matched, even in terms of Thorndike frequency-rank indices, to support such a conclusion. It was not within the scope of this research to pursue the interesting possibility suggested here.

The last three columns of Table 3.5 give data on the parts of speech in which the MGF words were used. Because this experiment was not designed to obtain normative data they should not be regarded as necessarily giving good estimates for normative purposes. More trustworthy data on these same words will be presented in Chapter IV.

Is parsing behavior subject to a "priming effect"?

In order to study the main question which this experiment had been designed to answer, all the "valid response" data were arranged so as to compare the

Table 3.5

Responses to Grammatically Ambiguous (MGF) Words

Level I

Word	Th.	Dale	MGF Vector	Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent) Noun	Verb	Adj.
SAVAGE	2b	1	4 0 6	3	65.5(N=29)	19	52.6	--	47.4
				6	100.0(N=87)	87	56.3	2.3	41.4
				Σ	91.4(N=116)	106	55.7	1.9	42.5
LIVE	1a	1	0 9 1	3	93.1	27	--	92.6	7.4
				6	87.4	76	--	85.5	14.5
				Σ	88.8	103	--	87.4	12.6
BLOSSOM	2a	1	8 2 0	3	96.5	28	78.6	21.4	--
				6	90.8	79	64.6	35.4	--
				Σ	92.2	107	68.2	31.8	--
GENERAL	1a	1	1 0 9	3	93.1	27	81.5	--	18.5
				6	93.1	81	59.3	--	40.7
				Σ	93.1	108	64.8	--	35.2
FREE	1a	1	0 1 9	3	82.8	24	--	4.2	95.8
				6	85.1	74	--	--	100.0
					87.0	101	--	1.0	99.0
GLANCE	2b	1	6 4 0	3	89.7	26	42.3	57.7	--
				6	89.7	78	66.7	33.3	--
				Σ	89.7	104	60.6	39.4	--
INSTANT	2b	1	9 0 1	3	93.1	27	63.0	--	37.0
				6	77.0	67	47.8	--	52.2
				Σ	81.0	94	52.1	--	47.9
DIRECT	1b	1	0 6 4	3	72.4	21	--	71.4	28.6
				6	67.8	59	--	33.9	66.1
				Σ	68.9	80	--	43.8	56.2
JUMP	2a	1	2 8 0	3	96.5	28	3.6	96.4	--
				6	78.2	68	17.6	82.4	--
				Σ	82.8	96	13.5	86.5	--

Table 3.5 (continued)

Word	Th.	Dale	MGF Vector	Level II Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent) Noun	 Verb	 Adj.
ELDER	3b	1	2 0 8	3	71.4(N=28)	20	60.0	--	40.0
				6	88.6(N=132)	117	65.0	--	35.0
				9	89.7(N=78)	70	81.4	--	18.6
				Σ	87.0(N=238)	207	70.0	--	30.0
SPARE	2a	4	0 8 2	3	96.4	27	18.5	22.2	59.2
				6	99.2	131	0.8	41.2	58.0
				9	100.0	78	3.8	48.7	47.4
				Σ	99.2	236	3.8	41.5	54.6
SCREEN	4a	1	9 1 0	3	96.4	27	66.7	--	33.3
				6	100.0	132	59.1	8.3	32.6
				9	97.4	76	59.2	13.2	27.6
				Σ	98.7	235	60.0	8.9	31.1
MORAL	3a	4	1 0 9	3	28.6	8	87.5	--	12.5
				6	84.1	111	82.0	--	18.0
				9	80.8	63	65.1	--	34.9
				Σ	76.5	182	76.4	--	23.6
LAST	1a	1	1 2 7	3	89.3	25	--	4.0	96.0
				6	100.0	132	0.8	9.1	90.2
				9	91.0	71	4.2	12.7	83.1
				Σ	95.8	228	1.8	9.6	88.6
WAX	3a	1	4 6 0	3	89.3	25	40.0	44.0	16.0
				6	98.5	130	51.5	32.3	16.2
				9	82.0	64	54.7	37.5	7.8
				Σ	92.0	219	51.1	35.2	13.7
INDIVIDUAL	3a	3	1 0 3	3	21.4	6	50.0	--	50.0
				6	88.6	117	65.0	--	35.0
				9	69.2	54	75.9	--	24.1
				Σ	74.3	177	67.8	--	32.2

Table 3.5, Level II (continued)

Word	Th.	Dale	MGF Vector	Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent)		
							Noun	Verb	Adj.
MATURE	4a	4	0 5 5	3	21.4	6	--	16.7	83.3
				6	89.4	118	--	6.8	93.2
				9	69.2	54	--	14.8	85.2
				Σ	74.7	178	--	9.6	90.4
DIP	3a	1	2 8 0	3	78.6	22	27.3	72.7	--
				6	98.5	130	63.8	36.2	--
				9	69.2	54	66.7	31.5	1.9
				Σ	86.5	206	60.7	38.8	0.5

Level III

Word	Th.	Dale	MGF Vector	Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent)		
							Noun	Verb	Adj.
OFFICIAL	3a	3	5 0 5	6	93.1(N=130)	121	31.4	--	68.6
				9	97.6(N=82)	80	55.0	--	45.0
				Σ	94.8(N=212)	201	40.8	--	59.2
ANIMATE	6	6	0 9 1	6	37.7	49	--	93.9	6.1
				9	54.9	45	--	57.8	42.2
				Σ	44.3	94	--	76.6	23.4
CHART	5b	1	9 1 0	6	90.8	118	88.1	11.9	--
				9	97.6	80	73.8	25.0	1.2
				Σ	93.4	198	82.3	17.1	0.5
PRIMARY	5b	5	1 0 9	6	71.5	93	15.1	--	84.9
				9	100.0	82	17.1	--	82.9
				Σ	82.5	175	16.0	--	84.0
DIZZY	6	2	0 1 9	6	86.2	112	--	--	100.0
				9	100.0	82	--	--	100.0
				Σ	91.5	194	--	--	100.0
CHISEL	6	2	4 6 0	6	72.3	94	83.0	17.0	--
				9	100.0	82	69.5	30.5	--
				Σ	83.0	176	76.7	23.3	--

Table 3.5, Level III (continued)

Word	Th.	Dale	MGF Vector	Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent)		
							Noun	Verb	Adj.
CARDINAL	6	3	7 0 3	6	79.2	103	83.5	--	16.5
				9	100.0	82	70.7	--	29.3
				Σ	87.2	185	77.8	--	22.2
LIMP	5b	1	0 4 6	6	78.4	102	14.7	51.0	34.3
				9	96.3	79	26.6	32.9	40.5
				Σ	85.3	181	19.9	43.1	37.0
DAZZLE	5a	3	1 9 0	6	61.5	80	11.2	83.8	5.0
				9	82.9	68	13.2	85.3	1.5
				Σ	69.8	148	12.2	84.5	3.4

Level IV

Word	Th.	Dale	MGF Vector	Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent)		
							Noun	Verb	Adj.
PENITENT	7	6	4 0 6	6	26.1(N=46)	12	8.3	--	91.7
				9	41.5(N=82)	34	8.8	--	91.2
				Σ	35.9(N=128)	46	8.7	--	91.3
TARRY	5a	4	0 9 1	6	65.2	30	--	83.3	16.7
				9	81.7	67	3.0	88.1	9.0
				Σ	75.8	97	2.1	86.6	11.3
BADGER	7	4	9 1 0	6	80.4	37	81.1	18.9	--
				9	86.6	71	64.8	35.2	--
				Σ	84.3	108	70.4	29.6	--
RADICAL	7	5	-1 0 9	6	45.6	21	14.3	--	85.7
				9	100.0	82	57.3	--	42.7
				Σ	80.5	103	48.5	--	51.5
TIDY	10	3	0 1 9	6	82.6	38	--	21.1	78.9
				9	98.8	81	--	18.5	81.5
				Σ	93.0	119	--	19.3	80.7
TINGE	8	4	6 4 0	6	17.4	8	87.5	--	12.5
				9	61.0	50	92.0	8.0	--
				Σ	45.3	58	91.4	6.9	1.7

Table 3.5, Level IV (continued)

Word	Th.	Dale	MGF Vector	Grade	% Valid Responses	No. Valid Responses	Part of Speech (Percent) Noun	Verb	Adj.
EPIDEMIC	8	4	8 0 2	6	45.6	21	95.2	--	4.8
				9	95.1	78	97.4	--	2.6
				Σ	77.3	99	97.0	--	3.0
EXEMPT	6	5	0 5 5	6	4.3	2	--	(50.0)	(50.0)
				9	67.1	55	--	20.0	80.0
				Σ	44.5	57	--	21.1	78.9
HUDDLE	7	3	1 9 0	6	63.0	29	55.2	44.8	--
				9	100.0	82	65.9	34.1	--
				Σ	86.7	111	63.1	36.9	--

probabilities of giving a certain part of speech for a given MGF word as a function of the part of speech in which the preceding UGF word had been classified. (Here we have reference to the classification that had been assigned to the UGF word prior to the experiment, not to the classification assigned by the subject. As noted above, however, nearly all UGF words were actually used in the parts of speech in which they had been previously classified.) Data were pooled over schools and grades. This resulted in a 3 x 3 contingency table for each MGF word, for (part of speech of preceding UGF word) x (part of speech in which the MGF word was used in the first sentence written). It was then possible to apply a chi-square test to the contingency table. In many cases, when frequencies in one column summed to zero or a small number, it was necessary to collapse the contingency table to a 3 x 2 table; in a few cases, no test was possible because all or nearly all frequencies occurred in a single column.

For example, at Level 2, the MGF stimulus WAX had been preceded by the UGF (N) stimulus CAMEL in Form B, the UGF (V) stimulus SOFTEN in Form A, and the UGF (A) stimulus PERSONAL in Form C. With valid response data from grades 3, 6, and 9 pooled, the resulting contingency table was as follows:

		Part of speech written for WAX			
Preceding item	Form	N	V	A	Total
N	B	37	26	11	74
V	A	41	24	9	74
A	C	34	27	10	71
		112	77	30	219

When columns V and A in the above table were combined, computation yielded a chi-squared value of 0.88, d.f. = 2, $p > .70$.

Of the 28 (out of a possible 36) tests that were made in this way, only one test yielded a chi-squared value with $p < .05$; this was for the word DAZZLE, with $\chi^2 = 7.99$, d.f. = 2, $p < .025$. Since one would expect about one such result out of 28 by chance, it is unlikely that any real significance can be attached to it. Examination of the data for DAZZLE suggests that if anything, there was a negative priming effect; that is to say, an adjective was less likely to be written when the item was preceded by an adjective.

Examination of the data grade by grade revealed no case in which there was likely to be some sort of significant interaction of a priming effect with grade.

The conclusion for this pilot experiment was clear; at least under the conditions of the experiment, where each MGF stimulus was preceded by one UGF stimulus, no significant priming effect was detectable. It appears that when Ss are presented with a list of words in isolation and are asked to make up sentences illustrating each word, they perceive and respond to each word as a separate entity, and there are no significant intralist influences on these perceptions.

It is possible, of course, that a priming effect might have been more prominent if Ss had been asked to make up only one sentence per word. In this experiment they were asked to make up more than one sentence if they could think of different ways to use the word, and many Ss did write more than one sentence for a given word. Table 3.6 reports data bearing on the extent to which Ss tended to write more than one sentence for a given stimulus word, depending on whether it was a UGF or MGF word, and the extent to which there was a change in part of speech when they wrote the second sentence for an MGF stimulus word. The data in Table 3.6 are pooled over forms since there was no evidence of any significant differences among forms in this respect.

From Table 3.6, it appears that (1) as grade increases, there is an increasing tendency to write a second or third sentence; (2) particularly at the higher grades, more sentences are written in response to MGF stimuli than to UGF stimuli; and (3) as grade increases, there is an increasing tendency to change the part of speech when the second sentence is written. However, these results are probably to some extent confounded with a number of extraneous variables, such as the nature of the samples, whether the form was the first one completed, the polysemy vs. polysyntagmy of the words, etc. Analysis of some of these matters will be more profitable in connection with the experiment to be reported in the next chapter, where the relevant data are more ample.

Table 3.6

Data on Second or Third Sentences Written to the Stimuli

(Data pooled over forms)

			No. of UGF items for which a 2nd or 3rd sentence was written		No. of MGF items for which a 2nd or 3rd sentence was written		No. of MGF items in which the 2nd sentence changed the part of speech	
Level	Grade	N	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	σ
1	3	29	3.14	3.32	3.59	3.02	1.07	1.05
	6	87	1.41	1.95	2.42	2.45	1.49	1.66
	Total	116	$F_{1,114} = 11.54$. $p < .001$		$F_{1,114} = 4.24$. $p < .05$		$F_{1,114} = 1.65$. n.s.	
2	3	28	1.18	1.69	1.46	1.88	0.46	0.87
	6	132	3.94	2.80	5.48	2.11	2.82	1.61
	9	78	3.32	2.47	6.40	2.24	4.04	1.91
	Total	238	$F_{2,235} = 13.07$. $p < .001$		$F_{2,235} = 55$. $p < .001$		$F_{2,235} = 48$. $p < .001$	
3	6	130	1.38	1.85	2.61	2.31	1.07	1.28
	9	82	4.07	2.66	7.07	1.78	4.22	1.65
	Total	212	$F_{1,210} = 74$. $p < .001$		$F_{1,210} = 221$. $p < .001$		$F_{1,210} = 240$. $p < .001$	
4	6	46	0.42	0.68	0.39	0.88	0.28	0.68
	9	82	4.06	2.61	3.94	2.10	2.70	1.91
	Total	128	$F_{1,126} = 84$. $p < .001$		$F_{1,126} = 117$. $p < .001$		$F_{1,126} = 67$. $p < .001$	

Chapter IV

Grammatical Perceptions of 240 MGF Words at Three Grade Levels: A Normative Study

Introduction

Since it had been determined, in the pilot experiment reported in Chapter III, that there were apparently no significant sequential effects in the grammatical perceptions of words presented in isolation, it became possible to proceed to the study of a much larger pool of MGF words. Data on a large number of MGF words were required for use in designing the main experiment (to be reported in Chapter V) on children's comprehension of MGF words in various contexts.

As in the previous experiment, the data that were of most interest were the empirical probabilities with which each MGF word was used in the several parts of speech when the children were presented with the word in isolation and asked to use it in one or more sentences. When a word was used with a high probability in a given part of speech in the first sentence written by a respondent, it was assumed that the word was well known in that part of speech by children at a given grade level. When a word was used with a low probability in a given part of speech, it was assumed that the word was less well known in that part of speech. However, attention was directed also to the probability with which a word was used in a different part of speech in a second sentence. If the probability of changing grammatical function in a second sentence should prove to be relatively high, it could be assumed that the word was relatively well known in the respective parts of speech. These data would be useful, it was thought, in identifying words whose relatively unusual grammatical functions were unlikely to be known by children at the several grade levels involved in this study.

A supplementary question of interest here was that of how successful the respondents were in using the MGF words in sentences. The proportions of respondents who could use the words successfully in sentences represented data that would index the relative difficulties of the words. These indices could be compared with other information that might bear on word difficulty, such as the Thorndike frequency-rank indices and the Dale ratings.

It was also of interest to note developmental changes, if any, in respondents' success in using the MGF words in sentences, in the probabilities with which they used them in the several possible parts of speech in the first sentence written for each word, and in the probabilities with which they used the words in changed grammatical functions in a second sentence.

Finally, it was of interest to compare the empirical part-of-speech proportions with the "MGF vectors" that had been assigned to the words by methods described in Chapter II.

The pilot experiment reported in the previous chapter yielded limited data on 36 MGF words. The present chapter reports further data on those words as well as data on 204 additional MGF words. Since this study was not concerned with children's knowledge of UGF words, no further data were obtained for such words.

Method

In order to obtain data on a large number of MGF words and at the same time limit the words presented to each respondent to a reasonable number, nine different test forms were prepared, each with 26 or 27 words. These comprised three forms at each of three levels of difficulty as determined by Thorndike frequency-rank indices. (The data on Dale ratings of words had not been developed at this stage of the research.) The forms included the 36 words previously studied, plus 204 additional words that were selected from the MGF compilations reported in Chapter II as follows:

Level 1
36 words from categories 1a and 1b (Thorndike ratings)
37 words from categories 2a and 2b
72 words, 24 in each of three forms (I-A, I-B, I-C)

Level 2
41 words from categories 3a and 3b
31 words from categories 4a and 4b
72 words, 24 in each of three forms (II-A, II-B, II-C)

Level 3
23 words from categories 5a and 5b
19 words from category 6
18 words from category 7
60 words, 20 in each of three forms (III-A, III-B, III-C)

The 204 additional MGF words were distributed randomly among the three forms at each level; the distribution that resulted was as follows, in terms of types of MGF words according to the MGF vectors:

	Level 1	Level 2	Level 3	Total
Type NV	42	60	49	151
Type NA	16	6	8	30
Type VA	5	0	2	7
Type NVA	8	6	1	15
Type N,V,A,Other	1	0	0	1
Total	72	72	60	204

In order to insure that reliable additional data would be obtained on the 36 MGF words used in the previous experiment, appropriate subsets of these were placed early in each form so that they would have a higher likelihood of being responded to if the student did not complete his form in the time allowed. Thus, the first three words of Level 1 and Level 2 forms were MGF words used in Levels I and II of the previous experiment, respectively, and the first six words of Level 3 were MGF words from Levels III and IV of the previous experiment. Beyond these words, the additional MGF words were randomly ordered within forms.

As in the previous experiment, each test form had a cover page giving instructions; this cover page was identical for all nine forms. (A sample form is shown in Appendix C.) The instructions read as follows:

"We want to find out how you and others in your grade use certain words.

"For each word write two short, complete sentences showing that you know how to use that word. Write the first sentence that you think of. Then, write another sentence using the word in a different way."

These instructions were followed by four examples, three of them filled out and the fourth for the child to try for himself. All sample words were MGF words of high frequency (right, paint, clear, and rest), and the samples illustrated different grammatical functions of these words. It was hoped in this way that the subjects would receive an implicit set to write words in different grammatical functions, even though no specific mention of grammatical function was made. The reason for asking each subject to write two sentences was that it was desired to investigate the extent to which different grammatical functions would be used under these instructions. At the same time, it was assumed, as before, that the first sentence written would illustrate the grammatical function in which the word was perceived with highest potency.

The test forms were printed and the responses were to be written. From experience with the earlier experiment, where the words were printed in "all caps" and were often interpreted by the subjects as proper nouns or adjectives, all words were printed in lower case.

As in the previous experiment, there were no instructions as to whether the sentences to be written by the subject could contain derivational forms since lack of such instructions had not caused difficulty in the previous experiment. Nevertheless, the samples on the cover page used the words only in their entry forms.

Because each form asked the student to write as many as 54 sentences (i.e., two sentences for each of 27 words in the forms at Levels 1 and 2 and for each of 26 words in the forms at Level 3), it was expected that completion of each form would take most of a class period.

Subjects

It was planned to have each form of each level completed by approximately 100 students of a given grade in order to obtain reasonably reliable data on the proportions with which different parts of speech were used. Originally it was hoped to obtain data for Level 1 at grades 3 and 6 and for Levels 2 and 3 at both grades 6 and 9. The difficulty of obtaining the required numbers of subjects and the costs involved made it necessary to abandon some parts of this plan. It was decided to concentrate on obtaining data for Level 1 on grade 3, Level 2 at grades 6 and 9, and Level 3 for grade 9 only. (A few cases were obtained for Level 1 at grade 6, but not enough to justify analysis.)

An effort was made to obtain cooperating schools from communities of different types (middle-class suburban, small town, and inner-city) and to make the representation as comparable as possible from grade to grade. It is a matter of judgment as to what degree this effort was successful. Table 4.1 shows the number of cases obtained from each of four communities, by level and grade:

Table 4.1

Community	Level 1		Level 2		Level 3	Total
	Gr. 3	Gr. 6	Gr. 6	Gr. 9	Gr. 9	
Edison, N. J.	40	--	61	--	62	163
Ewing, N. J.	75	55	84	--	--	214
Atlantic City, N. J.	123	--	168	305	339	935
Philadelphia, Pa.	64	--	92	--	27	183
	302	55	405	305	428	1495

Edison, N. J. is a community that includes a wide range of neighborhoods, with concentration, however, on lower middle-class and upper lower-class white- and blue-collar workers; the schools at which testing was conducted included few blacks. Ewing, N. J. is primarily a middle-class suburban community. Atlantic City, N. J. is essentially a medium-sized city that includes both middle- and lower-class neighborhoods, with a considerable proportion of black students in the schools where testing was done. Its one high school contributed all the grade 9 cases at Level 2 and a majority of the cases for Level 3, grade 9. The testing done in Philadelphia was at two schools, one (grade 3 and 6 cases) in an urban redevelopment project, and the other (grade 9 cases) in an inner-city ghetto. In the aggregate, it is believed that the data over the various levels and grades come from reasonably comparable and representative samples, with the exception of the data for Level 1, grade 6, which were in any case too meager to justify being analyzed.

Since the forms were distributed to random thirds of each class group (by prearrangement of the forms in the order A, B, C, A, B, C, ...), approximately equal numbers took each form at each level and grade. The method of administration was similar to that described for the previous pilot experiment.

Scoring of data

Every position on each respondent's test form was inspected by a research assistant in order to classify the response according to the following key:

0	No response (i.e., nothing written at all).
1	Stimulus word used as a NOUN (including possessives and plural forms).
2	Stimulus word used as a VERB (including forms in -s, -ed, and -ing, except when forms in -ing or -ed would properly be classified as nouns or adjectives, e.g., BUILDING, in which case the response was coded T; see below).
3	Stimulus word used as an ADJECTIVE (including comparative and superlative forms).
4	Stimulus word used as an ADVERB.
5	Stimulus word used in some OTHER part of speech.
A	Response not codable because of grammatical AMBIGUITY.
C	Stimulus word is used as a proper noun or adjective, i.e., CAPITALIZED (However, certain capitalized words were classified in the appropriate part of speech when they occurred in phrasal titles, e.g., FREE was classified as an adjective in the movie title "Born Free.")
I	Word used in an IMPLIED TRANSFORMATION to another word or part of speech, e.g., "Is this individual wrapped cheese?" (for individually or "your class used the associate law of addition." (for associative).
Q	Word used in citation or QUOTATION form, i.e., without being used in any part of speech, as in "What does 'epidemic' mean?"
R	Stimulus word not recognized in its proper sense or meaning, e.g., FILL mistaken for FEEL.

T Illegal transformation of word to another part of speech, e.g., BUILD transformed to BUILDING and used as a noun.

U Uninterpretable because of illegibility or other reasons not included above.

Informal reliability checks showed that agreement was high, particularly when the response was clearly classifiable in the normal part-of-speech categories (noun, verb, adjective, adverb, other). Because of the very large volume of data (which could have totaled about 80,000 responses if all students wrote two sentences for each stimulus word) it was not considered worthwhile to institute reliability checks beyond those used in training the research assistants. In any case, the two research assistants who did the scoring frequently consulted each other to decide the coding of difficult cases.

All data were keypunched and most of the analyses were done by a high-speed computer (IBM 360/65) through the use of specially written programs.

RESULTS

The major purpose of this experiment was to determine, by an objective method, the relative frequency with which a large number of words, 240 in all, were perceived in different parts of speech when these words were presented in isolation. Since a large number of respondents wrote two sentences for each word, and since in some cases data were obtained for a given word from two grade levels, the data were voluminous. Therefore, this report will restrict itself, in the main, to considering the data pooled over schools for a given grade level. No attempt is made to analyze the data for different schools within a grade level.

Furthermore, the data obtained for 55 cases for Level 1, grade 6 will be ignored because of the small frequencies available for each of the three forms.

Incidence of valid, invalid, and no responses for "first sentence" responses

If all 1440 subjects in the designated groups had written at least one sentence for each word, there would have been 38,452 responses in the "first sentence" position to score. Actually, over the total sample, only 26,716 responses were written in the first sentence position, or 69.5% of possible. The percentages for the different levels and grades were as follows: Level 1, grade 3, 48.5%; Level 2, grade 6, 76.8%, grade 9, 71.9%; Level 3, grade 9, 75.9%. However, a considerable number of the responses were not considered valid for the purposes of this experiment. As shown in Table 4.2, there were small percentages of responses that were coded as A (ambiguous), C (capitalized), I (implicit transformations), Q (quotation forms), T (illegal transformations), and U (uninterpretable). Significant percentages of responses, ranging from 1.6 to 8.4 depending on the level, form, and grade, were coded as R (not recognized in the proper sense).

Only responses scored as representing clear and legitimate uses of the words as nouns, verbs, adjectives, or other parts of speech were considered valid. The percentages of "valid" responses at the different levels and grades were as follows: Level 1, grade 3, 39.1%; Level 2, grade 6, 66.2%, grade 9, 67.6%; Level 3, grade 9, 70.7%. The variation in these percentages reflects (1) the varying difficulties of the words included at the several levels, (2) the average ability levels at the several grades, and (3) possibly, but probably to a limited extent, lack of comparability of the samples with respect to ability or motivational levels. To the extent possible, the subjects

Table 4.2

Percentages of Valid, Invalid, and No Response, by Level, Form, and Grades

				Percentages of all responses (1st sentence)									
Level	Form	Grade	Total N	No Response	A	C	I	Q	R	T	U	Valid
1	A	3	102	48.8	0.6	1.3	0.0	0.1	3.8	0.5	1.2	43.5
	B	3	102	53.1	0.5	0.6	0.2	0.8	7.6	0.7	2.0	34.5
	C	3	98	52.6	0.5	0.7	0.3	0.6	2.8	0.4	2.7	39.3
	All	3	302	51.5	0.5	0.9	0.2	0.5	4.7	0.5	2.0	39.1
2	A	6	126	20.9	0.2	0.4	0.1	1.3	5.5	0.8	0.9	69.8
		9	102	29.2	0.3	0.2	0.2	0.1	1.7	0.7	0.2	67.4
	B	6	141	22.9	0.3	0.8	0.2	0.8	7.2	0.4	0.4	66.9
		9	106	21.8	0.2	0.9	0.1	0.2	2.6	0.7	0.2	73.2
	C	6	138	25.5	0.4	0.5	0.4	1.2	8.4	0.7	0.6	62.3
		9	97	33.9	0.1	0.1	0.1	0.1	3.2	0.9	0.1	61.6
	All	6	405	23.2	0.3	0.6	0.3	1.1	7.1	0.6	0.6	66.2
		9	305	28.1	0.2	0.4	0.1	0.1	2.5	0.8	0.2	67.6
3	A	9	143	18.0	0.2	2.2	0.0	0.1	1.6	1.0	0.1	76.7
	B	9	147	31.2	0.2	0.7	0.1	0.2	3.3	0.4	0.3	63.6
	C	9	138	22.9	0.4	0.7	0.3	0.6	2.2	0.8	0.1	72.0
	All	9	428	24.1	0.3	1.2	0.1	0.3	2.4	0.8	0.2	70.7

Total No. of Responses Scored (1st sentence only)

Level 1	Grade 3:	3953	(48.5% of possible)
2	Grade 6:	8402	(76.8% of possible)
2	Grade 9:	5917	(71.9% of possible)
3	Grade 9:	8444	(75.9% of possible)
		26716	(69.5% of possible)

had been given enough time to complete their forms, but the results suggest that many did not put enough effort into completing the forms properly. It is somewhat surprising that the results in Table 4.2 do not show a greater contrast than one might expect between the performances of grades 6 and 9 at Level 2, or indeed between Levels 2 and 3 at grade 9. No explanation for this fact suggests itself immediately.

It is apparent that the words included at Level 1 for grade 3 tended to be somewhat more difficult for the children to use in sentences than was expected. It is probable that overall, the grade 3 samples used in this experiment were of a lower average ability level than the rather select samples used at grade 3 in the previous experiment. The words included for Levels 2 and 3, on the other hand, were, apparently, approximately of the difficulty expected, with valid responses averaging around 65 to 70 percent.

We may proceed immediately to a consideration of the results for the individual words, which are tabulated in Table 4.3. Table 4.3, in fact, presents a summary of most of the relevant data of the experiment, along with information on the level, form, and item number of the word, the word number as assigned in Appendix A, the word, the sample from which the word was drawn (S), the Dale rating (D), the Thorndike frequency-rank index (TH), the grammatical code (GC), the semantic code (SM), and the MGF vector. Various aspects of these data will be discussed in remaining sections of this chapter.

Here let us consider the wide variation among the words with respect to the percentages of valid responses in the first sentence position. These percentages may be taken, with some qualifications, as indices of the difficulty that the respondents had in properly using each word in a sentence. (The major qualification is that it could be argued that some of the "nonvalid" responses were in fact "proper" uses of the word, particularly those coded as

TABLE 4.3 DATA FROM NORMATIVE STUDY

LEVEL 1, GRADE 3

-----DATA FROM FIRST SENTENCE WRITTEN----- --2ND SENTENCE--

LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	VECT. A	TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(OT)	P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
1A	26	36	AGE	3	1	1B	4	1	9	1	0	102	0.245	25	1.000	*0.0	*0.0	*0.0	0.600	0.520	0.0
1C	21	108	BABY	3	1	1B	7	1	8	1	1	98	0.622	61	0.721	*0.0	0.279	*0.0	0.754	0.705	0.279
1C	11	112	BALANCE	1	3	2B	4	3	5	5	0	98	0.337	33	0.485	0.515	*0.0	*0.0	0.667	0.637	0.381
1C	3	150	BLOSSOM	1	1	2A	4	1	8	2	0	98	0.480	47	0.787	0.213	*0.0	*0.0	0.660	0.596	0.107
1C	8	167	BROKE	2	2	2B	6	1	0	9	1	98	0.735	72	*0.0	0.889	*0.111	*0.0	0.875	0.806	0.276
1A	17	184	CAMP	3	1	2A	7	1	7	2	-1	102	0.559	57	0.702	0.298	*0.0	*0.0	0.754	0.631	0.194
1B	26	205	CHANCE	3	1	1B	7	1	8	1	1	102	0.216	22	0.955	*0.045	*0.0	*0.0	0.591	0.500	0.182
1C	26	235	COMMAND	1	2	1B	4	1	4	6	0	98	0.092	9	0,333	0.667	0.0	0.0	0.556	0.556	0.400
1B	17	261	COPY	1	1	2A	4	1	8	2	0	102	0.510	52	0.135	0.865	*0.0	*0.0	0.615	0.480	0.280
1A	13	275	CROWD	1	1	1B	4	1	7	3	0	102	0.431	44	0.864	0.136	*0.0	*0.0	0.682	0.636	0.286
1C	17	292	DECK	1	1	2B	4	3	8	2	0	98	0.510	50	0.900	*0.100	*0.0	*0.0	0.680	0.580	0.138
1C	1	316	DIRECT	2	1	1B	6	3	0	6	4	98	0.469	46	*0.0	0.739	0.261	*0.0	0.761	0.652	0.333
1A	6	321	DISEASE	1	3	2B	4	1	9	1	0	102	0.167	17	0.941	0.059	*0.0	*0.0	0.765	0.706	0.083
1B	13	326	DIVIDE	3	1	1B	4	1	-1	9	0	102	0.402	41	*0.024	0.976	*0.0	*0.0	0.634	0.610	0.0
1A	20	342	DUF	2	1	2A	5	1	2	0	8	102	0.127	13	0.077	0.0	0.923	*0.0	0.692	0.230	0.0
1B	6	351	EFFECT	3	4	2A	4	1	8	2	0	102	0.059	6	1.000	0.0	0.0	0.0	0.667	0.500	0.0
1C	13	359	END	3	1	1A	4	1	8	2	0	98	0.796	78	0.949	*0.051	*0.0	*0.0	0.731	0.705	0.109
1C	7	402	FEVER	1	1	2B	4	1	9	-1	0	98	0.490	48	1.000	*0.0	*0.0	*0.0	0.667	0.604	0.0
1A	16	405	FILL	3	1	1A	4	1	-1	9	0	102	0.520	53	*0.038	0.962	*0.0	*0.0	0.679	0.585	0.032
1B	15	431	FORMER	1	4	1B	5	1	1	0	9	102	0.098	10	0.600	0.0	0.400	0.0	0.500	0.300	0.333
1A	2	437	FREE	2	1	1A	6	1	0	1	9	102	0.833	85	*0.0	*0.059	0.941	*0.0	0.918	0.871	0.081
1A	15	445	GAME	2	1	1B	5	3	9	0	1	102	0.833	85	1.000	*0.0	*0.0	*0.0	0.753	0.706	0.0
1C	2	447	GENERAL	2	1	1A	5	4	1	0	9	98	0.480	47	0.702	*0.0	0.298	*0.0	0.872	0.787	0.703
1B	20	452	GIANT	2	1	2A	5	1	7	0	3	102	0.373	38	0.842	*0.0	0.158	*0.0	0.605	0.579	0.500
1B	2	456	GLANCE	1	1	2B	4	3	6	4	0	102	0.265	27	0.259	0.741	*0.0	*0.0	0.407	0.370	0.200
1B	10	461	BETTER	2	1	1A	8	1	0	1	5	102	0.755	77	*0.0	*0.013	0.805	0.182	0.740	0.727	0.250
1C	20	468	GRAVE	2	1	2A	5	4	8	0	2	98	0.204	20	0.950	*0.0	*0.050	*0.0	0.400	0.250	0.200
1A	18	469	GREEN	1	1	1A	7	1	2	-1	7	102	0.667	68	0.162	*0.0	0.838	*0.0	0.750	0.721	0.265
1B	5	499	HIRE	1	1	2B	4	1	1	9	0	102	0.294	30	*C.033	0.967	*0.0	*0.0	0.767	0.467	0.0
1C	15	514	HUNDRED	3	1	1A	5	1	5	0	5	98	0.561	55	0.236	*0.0	0.764	*0.0	0.655	0.601	0.182
1B	1	548	INSTANT	1	1	2B	5	1	9	0	1	102	0.333	33	0.545	*0.0	0.454	*0.0	0.924	0.736	0.520
1B	16	553	INTEREST	3	3	1B	4	3	6	4	0	102	0.265	27	0.370	0.630	*0.0	*0.0	0.630	0.556	0.200
1B	24	557	ISSUE	2	3	2A	4	2	9	1	0	102	0.098	10	0.600	0.400	0.0	0.0	0.400	0.300	0.0
1A	1	566	JUMP	1	1	2A	4	1	2	8	0	102	0.863	88	*0.0	1.000	*0.0	*0.0	0.875	0.818	0.056
1A	5	570	KICK	2	1	2B	4	1	1	9	0	102	0.843	86	*0.058	0.942	*0.0	*0.0	0.837	0.768	0.091
1A	24	597	LEAN	3	1	2A	7	2	1	7	2	102	0.157	16	0.063	0.875	0.063	*0.0	0.688	0.625	0.100
1C	5	601	LEFT	2	1	1A	6	4	0	8	2	98	0.827	81	*0.086	0.531	0.383	*0.0	0.827	0.777	0.492
1B	3	615	LIVF	1	1	1A	6	1	0	9	1	102	0.863	88	*0.0	0.977	*0.023	*0.0	0.773	0.739	0.015
1B	19	623	LINE	2	1	1A	4	3	9	1	0	102	0.657	67	0.940	*0.060	*0.0	*0.0	0.716	0.657	0.023
1C	6	658	MANUFACTURF	1	3	2B	4	1	4	6	0	98	0.082	8	0.125	0.875	0.0	0.0	0.750	0.375	0.0
1A	25	659	MAP	1	1	2A	4	1	9	1	0	102	0.284	29	1.000	*0.0	*0.0	*0.0	0.724	0.689	0.0

*Asterisks are explained on page 81.

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 1, GRADE 3

LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	A	TOT. N	% VALID	BASE N	-----DATA FROM FIRST SENTENCE WRITTEN----- P(N)	P(V)	P(A)	P(OT)	--2ND SENTENCE-- P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
1C	16	689	MILL	1	1	1B	4	1	9	1	0	98	0.367	36	1.000	*0.0	*0.0	*0.0	0.500	0.444	0.125
1C	19	694	MINUTE	2	1	1B	5	4	9	0	1	98	0.408	40	1.000	*0.0	*0.0	*0.0	0.675	0.625	0.0
1A	23	696	MISS	3	1	1A	4	3	1	9	0	102	0.206	21	0.238	0.762	*0.0	*0.0	0.810	0.428	0.222
1B	23	723	NAME	3	1	1A	4	1	8	2	0	102	0.559	57	0.965	*0.035	*0.0	*0.0	0.561	0.526	0.167
1C	12	726	NATIONAL	3	3	2B	5	1	1	0	9	98	0.235	23	*0.0	*0.0	1.000	*0.0	0.652	0.565	0.0
1A	21	738	NINE	1	1	1B	5	1	1	0	9	102	0.559	57	*0.053	*0.0	0.947	*0.0	0.737	0.719	0.171
1B	25	740	NOISE	1	1	2A	4	1	9	-1	0	102	0.265	27	1.000	*0.0	*0.0	*0.0	0.444	0.407	0.0
1B	21	753	OBJECT	2	2	1B	4	4	7	3	0	102	0.265	27	0.852	0.148	*0.0	*0.0	0.556	0.519	0.214
1C	25	782	PACK	3	1	2A	4	3	4	6	0	98	0.378	37	0.351	0.649	*0.0	*0.0	0.568	0.514	0.421
1C	23	783	PAGE	1	1	1B	4	2	9	-1	0	98	0.439	43	1.000	*0.0	*0.0	*0.0	0.744	0.674	0.103
1A	12	797	PATIENT	2	3	2B	5	3	7	0	3	102	0.127	13	0.692	*0.0	0.308	*0.0	0.846	0.692	1.000
1A	22	818	PICK	3	1	1B	4	3	1	9	0	102	0.451	46	*0.043	0.957	*0.0	*0.0	0.717	0.717	0.152
1B	11	825	PLAIN	3	1	1A	5	4	3	0	7	102	0.216	22	0.227	*0.0	0.773	*0.0	0.955	0.545	0.167
1A	9	864	PRESERVE	1	3	2A	4	1	1	9	0	102	0.098	10	0.300	0.700	0.0	0.0	0.900	0.600	0.667
1B	12	876	PRIVATE	2	3	2A	5	4	1	0	9	102	0.284	29	*0.069	*0.0	0.931	*0.0	0.690	0.586	0.176
1C	24	888	PROMPT	1	3	2B	7	3	1	4	5	98	0.010	1	0.0	0.0	1.000	0.0	0.0	0.0	9.999
1A	4	897	PUBLIC	3	1	2B	5	1	3	0	7	102	0.451	46	*0.087	*0.0	0.913	*0.0	0.804	0.761	0.171
1B	9	931	RENDER	1	6	2B	4	3	1	9	0	102	0.039	4	0.0	1.000	0.0	0.0	0.500	0.250	0.0
1B	4	957	ROYAL	1	1	2A	5	1	1	0	9	102	0.284	29	*0.0	*0.0	1.000	*0.0	0.793	0.621	0.056
1B	22	958	RUN	3	1	1A	4	1	2	8	0	102	0.598	61	*0.0	1.000	*0.0	*0.0	0.656	0.607	0.054
1A	3	964	SAVAGE	1	1	2B	5	1	4	0	6	102	0.147	15	0.667	*0.0	0.333	*0.0	0.800	0.666	0.200
1C	22	975	SEASON	1	1	1B	4	3	9	1	0	98	0.367	36	1.000	*0.0	*0.0	*0.0	0.639	0.556	0.050
1B	7	977	SECURE	2	3	2A	6	1	0	8	2	102	0.186	19	*0.0	0.421	0.579	*0.0	0.632	0.526	0.300
1C	18	987	SEPARATE	2	1	1B	6	1	0	3	7	98	0.173	17	*0.0	1.000	*0.0	*0.0	0.412	0.412	0.0
1A	14	1015	SIGHT	1	1	1A	4	1	9	1	0	102	0.490	50	0.920	*0.080	*0.0	*0.0	0.780	0.640	0.0
1C	10	1023	SKIRT	1	1	2A	4	4	7	3	0	98	0.510	50	0.940	*0.060	*0.0	*0.0	0.640	0.620	0.032
1A	8	1029	SLOPE	1	2	2B	4	1	8	2	0	102	0.108	11	1.000	*0.0	*0.0	*0.0	0.727	0.636	0.0
1B	8	1044	SORROW	1	1	2A	4	1	9	1	0	102	0.157	16	0.938	0.063	*0.0	*0.0	0.438	0.438	0.0
1C	4	1066	STANDARD	2	3	2B	5	3	7	0	3	98	0.143	14	0.286	*0.0	0.714	*0.0	0.714	0.643	0.111
1B	14	1067	STAR	1	1	1B	4	1	9	1	0	102	0.725	74	1.000	*0.0	*0.0	*0.0	0.784	0.730	0.0
1C	9	1077	STIR	1	1	2A	4	1	2	8	0	98	0.357	35	*0.029	0.971	*0.0	*0.0	0.686	0.571	0.100
1A	7	1084	STRANGER	1	1	2B	5	1	9	0	-1	102	0.480	49	0.898	*0.0	*0.102	*0.0	0.837	0.755	0.216
1C	14	1106	SUPPLY	3	3	1B	4	1	7	3	0	98	0.214	21	0.810	0.190	*0.0	*0.0	0.524	0.476	0.400
1A	27	1116	TAKE	1	1	1A	4	1	-1	9	0	102	0.382	39	*0.026	0.974	*0.0	*0.0	0.667	0.642	0.0
1A	11	1148	TOTAL	1	2	2A	7	1	3	1	6	102	0.343	35	0.600	*0.086	0.314	*0.0	0.771	0.429	0.133
1B	27	1152	TRADE	3	1	1B	4	1	8	2	0	102	0.196	20	*0.0	1.000	*0.0	*0.0	0.600	0.450	0.222
1A	19	1153	TRAIN	2	1	1A	4	4	7	3	0	102	0.618	63	0.921	*0.079	*0.0	*0.0	0.714	0.666	0.286
1A	10	1215	WARM	2	1	1A	6	1	0	3	7	102	0.765	78	*0.013	*0.026	0.962	*0.0	0.808	0.744	0.034
1B	18	1217	WASTE	1	1	1B	7	1	4	5	1	102	0.363	37	0.270	0.730	*0.0	*0.0	0.703	0.486	0.111
1C	27	1235	WISH	3	1	1A	4	1	2	8	0	98	0.337	33	*0.061	0.939	*0.0	*0.0	0.697	0.667	0.182

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 2, GRADE 6

LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	A	-----DATA FROM FIRST SENTENCE WRITTEN----- TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(DT)	--2ND SENTENCE-- P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
2A	6	14	ACKNOWLEDGE	1	4	4A	4	1	-1	9	0	126	0.302	38	*0.0	1.000	*0.0	*0.0	0.526	0.368	0.071
2C	22	31	AFFECT	1	3	3A	4	1	1	9	0	138	0.304	42	*0.024	0.976	*0.0	*0.0	0.714	0.405	0.0
2A	14	57	ANCHOR	1	2	3B	4	1	6	4	0	126	0.627	79	0.785	0.215	*0.0	*0.0	0.873	0.760	0.600
2C	15	67	APPEAL	2	3	3A	4	1	5	5	0	138	0.507	70	*0.114	0.886	*0.0	*0.0	0.571	0.443	0.323
2B	12	81	ARREST	2	2	4A	4	1	6	4	0	141	0.773	109	0.229	0.771	*0.0	*0.0	0.679	0.578	0.397
2A	21	90	ASSOCIATE	2	3	3B	4	1	3	7	0	126	0.540	68	0.294	0.676	*0.029	*0.0	0.750	0.676	0.522
2B	6	97	ATTIRE	1	6	4B	4	1	9	1	0	141	0.149	21	0.571	0.429	*0.0	*0.0	0.476	0.381	0.375
2A	12	162	BOTHER	2	1	4A	4	1	1	9	0	126	0.754	95	*0.095	0.905	*0.0	*0.0	0.811	0.769	0.315
2C	6	165	BRACE	1	3	4B	4	3	3	7	0	138	0.768	106	0.491	0.509	*0.0	*0.0	0.887	0.868	0.565
2B	14	175	BUBBLE	1	1	3A	4	1	7	3	0	141	0.936	132	0.970	*0.030	*0.0	*0.0	0.894	0.833	0.118
2C	10	182	BUY	2	1	3A	4	1	1	9	0	138	0.899	124	*0.040	0.960	*0.0	*0.0	0.871	0.670	0.169
2C	20	192	CAREER	2	3	4B	4	1	9	-1	0	138	0.580	80	1.000	*0.0	*0.0	*0.0	0.675	0.575	0.022
2A	26	202	CELL	1	1	3A	4	3	9	-1	0	126	0.651	82	0.890	*0.110	*0.0	*0.0	0.768	0.707	0.138
2B	26	207	CHANNEL	1	3	3B	4	1	9	1	0	141	0.766	108	1.000	*0.0	*0.0	*0.0	0.833	0.824	0.011
2B	20	208	CHAPTER	2	3	4A	4	1	9	-1	0	141	0.851	120	0.992	*0.008	*0.0	*0.0	0.700	0.617	0.027
2C	4	217	CHOCOLATE	1	1	4A	5	1	9	0	-1	138	0.935	129	0.349	*0.0	0.651	*0.0	0.899	0.868	0.366
2B	21	302	DESIGN	2	3	3A	4	1	5	5	0	141	0.723	102	0.520	0.480	*0.0	*0.0	0.824	0.804	0.585
2A	1	315	DIP	1	1	3A	4	3	2	8	0	126	0.952	120	0.292	0.708	*0.0	*0.0	0.925	0.867	0.519
2A	20	327	DIVORCE	2	3	4B	4	1	7	3	0	126	0.683	86	0.547	0.453	*0.0	*0.0	0.721	0.616	0.491
2A	5	329	DOCK	1	1	4A	4	3	9	1	0	126	0.881	111	0.820	0.180	*0.0	*0.0	0.883	0.721	0.475
2C	24	338	DRUNK	2	1	4B	7	1	2	1	7	138	0.804	111	*0.027	0.423	0.550	*0.0	0.865	0.847	0.670
2C	18	340	DRUG	2	1	3B	4	1	9	1	0	138	0.783	108	0.963	*0.037	*0.0	*0.0	0.954	0.889	0.156
2A	3	353	ELDER	3	1	3B	5	1	2	0	8	126	0.722	91	0.670	*0.0	0.330	*0.0	0.791	0.670	0.246
2B	5	371	ESTIMATE	1	3	4A	4	1	3	7	0	141	0.695	98	0.276	0.724	*0.0	*0.0	0.765	0.734	0.403
2C	26	415	FIST	1	1	3B	4	1	9	-1	0	138	0.543	75	0.947	*0.027	*0.027	*0.0	0.680	0.666	0.160
2C	5	453	GIRDLE	1	4	4B	4	1	7	3	0	138	0.652	90	0.989	*0.011	*0.0	*0.0	0.689	0.656	0.068
2A	24	457	GLARE	1	3	4A	7	1	5	4	1	126	0.603	76	0.829	0.171	*0.0	*0.0	0.684	0.631	0.417
2B	24	465	GRADUATE	2	3	4A	7	1	3	3	4	141	0.596	84	0.286	0.714	*0.0	*0.0	0.750	0.691	0.586
2A	25	470	GRIN	1	2	4B	4	1	4	6	0	126	0.651	82	0.415	0.585	*0.0	*0.0	0.634	0.622	0.529
2A	13	491	HEDGE	1	3	3A	4	2	9	1	0	126	0.627	79	0.924	*0.076	*0.0	*0.0	0.620	0.494	0.308
2B	13	511	HUM	1	1	3B	4	1	4	6	0	141	0.738	104	*0.058	0.942	*0.0	*0.0	0.817	0.712	0.270
2C	21	519	HUT	2	1	3A	4	1	9	-1	0	138	0.652	90	1.000	*0.0	*0.0	*0.0	0.656	0.467	0.071
2B	25	534	INCENSE	1	4	4A	4	3	5	5	0	141	0.206	29	1.000	*0.0	*0.0	*0.0	0.517	0.448	0.0
2B	1	540	INDIVIDUAL	2	3	3A	5	1	7	0	3	141	0.553	78	0.385	*0.0	0.615	*0.0	0.744	0.603	0.511
2C	13	561	JAW	1	1	3A	4	1	9	1	0	138	0.768	106	0.972	*0.028	*0.0	*0.0	0.802	0.689	0.192
2B	10	562	JOB	2	1	3A	4	1	9	1	0	141	0.972	137	1.000	*0.0	*0.0	*0.0	0.832	0.766	0.0
2A	16	577	KNOT	1	1	3B	4	3	7	3	0	126	0.802	101	0.980	*0.020	*0.0	*0.0	0.792	0.703	0.197
2A	2	588	LAST	3	1	1A	8	3	1	2	7	126	0.937	118	*0.0	*0.110	0.881	*0.008	0.966	0.966	0.316
2A	7	610	LIBERAL	1	5	4A	5	3	3	0	7	126	0.183	23	0.304	*0.0	0.696	*0.0	0.696	0.566	0.231
2B	16	624	LINK	1	7	3B	4	3	4	6	0	141	0.667	94	0.734	0.255	*0.011	*0.0	0.777	0.596	0.321
2A	11	652	MAJOR	2	1	4A	7	3	3	2	5	126	0.817	103	0.660	*0.039	0.301	*0.0	0.942	0.903	0.570

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 2, GRADE 6

-----DATA FROM FIRST SENTENCE WRITTEN----- --2ND SENTENCE--

LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF VECT. N	V	A	TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(OT)	P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
2C	1	670	MATURE	1	4	4A	6	1	0	5	5	138	0.406	56	*0.0	0.143	0.857	*0.0	0.696	0.607	0.382
2C	16	698	MIST	1	3	3A	4	1	9	-1	0	138	0.529	73	0.986	*0.014	*0.0	*0.0	0.699	0.548	0.025
2C	2	709	MORAL	2	4	3A	5	1	1	0	9	138	0.333	46	0.870	*0.0	0.130	*0.0	0.674	0.456	0.333
2C	11	712	MOTIVE	1	4	3B	7	1	8	-1	1	138	0.188	26	0.962	*0.0	*0.038	*0.0	0.615	0.307	0.0
2C	25	713	MOTOR	1	1	4A	4	1	8	2	0	138	0.739	102	0.990	*0.0	*0.010	*0.0	0.735	0.656	0.045
2A	10	761	OFFICER	2	1	3A	4	1	9	-1	0	126	0.905	114	1.000	*0.0	*0.0	*0.0	0.816	0.790	0.0
2C	14	794	PARTNER	2	1	3B	4	1	9	-1	0	138	0.826	114	1.000	*0.0	*0.0	*0.0	0.675	0.596	0.015
2A	4	827	PLANE	2	1	4B	4	3	9	1	0	126	0.841	106	0.981	*0.019	*0.0	*0.0	0.849	0.576	0.016
2C	12	939	POLICE	2	1	4A	4	1	9	1	0	138	0.855	118	0.941	*0.059	*0.0	*0.0	0.839	0.737	0.184
2A	9	844	POLL	1	4	4B	4	1	8	2	0	126	0.214	27	1.000	*0.0	*0.0	*0.0	0.704	0.296	0.125
2A	27	882	PROGRESS	2	4	3A	4	1	7	3	0	126	0.603	76	0.816	0.184	*0.0	*0.0	0.658	0.619	0.277
2B	9	906	QUIVER	1	3	4B	4	3	2	8	0	141	0.433	61	0.197	0.803	*0.0	*0.0	0.672	0.574	0.457
2B	11	926	RELATIVE	2	3	3A	5	4	7	0	3	141	0.652	92	0.793	*0.0	0.207	*0.0	0.663	0.587	0.389
2B	27	936	RESERVE	2	4	3A	4	1	6	4	0	141	0.567	80	*0.112	0.850	*0.037	*0.0	0.662	0.587	0.340
2B	7	943	REVEREND	1	4	4B	5	1	-1	0	9	141	0.213	30	0.900	*0.0	0.100	*0.0	0.667	0.434	0.154
2C	27	944	RICE	2	1	3A	4	1	9	-1	0	138	0.717	99	0.990	*0.010	*0.0	*0.0	0.717	0.626	0.032
2C	9	956	ROVE	1	3	4A	4	1	-1	9	0	138	0.087	12	*0.0	1.000	*0.0	*0.0	0.500	0.333	0.0
2A	19	967	SCARF	2	1	3A	4	1	1	9	0	126	0.802	101	*0.099	0.901	*0.0	*0.0	0.792	0.703	0.254
2B	19	972	SCREAM	2	1	3A	4	1	1	9	0	141	0.752	106	0.226	0.774	*0.0	*0.0	0.774	0.642	0.456
2C	3	973	SCREEN	1	[illegible]	4A	4	3	9	1	0	138	0.884	122	0.910	*0.033	*0.057	*0.0	0.934	0.869	0.236
2C	19	1002	SHIFT	2	3	3B	4	1	9	1	0	138	0.725	100	0.480	0.520	*0.0	*0.0	0.900	0.850	0.553
2A	15	1033	SNAKE	2	1	3B	4	1	9	-1	0	126	0.825	104	0.971	*0.029	*0.0	*0.0	0.808	0.751	0.103
2A	23	1034	SNATCH	1	2	3B	4	1	1	9	0	126	0.714	90	*0.0	1.000	*0.0	*0.0	0.600	0.522	0.064
2C	7	1039	SOLITARY	1	4	4A	5	1	2	0	8	138	0.348	48	0.208	*0.0	0.792	*0.0	0.604	0.417	0.150
2B	3	1049	SPARE	2	4	2A	6	4	0	8	2	141	0.943	133	*0.068	0.361	0.571	*0.0	0.932	0.880	0.641
2B	15	1053	SPEAR	2	1	3A	4	1	8	2	0	141	0.794	112	0.866	*0.134	*0.0	*0.0	0.768	0.660	0.338
2B	4	1057	SPIT	2	1	4B	4	3	5	5	0	141	0.624	88	*0.091	0.909	*0.0	*0.0	0.716	0.625	0.455
2B	23	1063	STAIN	1	3	3A	4	1	3	7	0	141	0.745	105	0.838	0.162	*0.0	*0.0	0.657	0.600	0.444
2B	18	1074	STEER	2	1	3B	4	3	1	9	0	141	0.801	113	0.336	0.664	*0.0	*0.0	0.885	0.832	0.617
2A	8	1111	SWAMP	1	1	4A	4	3	9	1	0	126	0.825	104	0.942	*0.058	*0.0	*0.0	0.769	0.673	0.286
2B	17	1128	TENTH	1	2	3A	5	1	1	0	9	141	0.858	121	*0.066	*0.0	0.934	*0.0	0.818	0.776	0.170
2C	23	1163	TRIUMPH	1	3	3B	4	1	8	2	0	138	0.275	38	0.711	0.289	*0.0	*0.0	0.632	0.447	0.176
2B	8	1171	TWINE	1	3	4A	4	1	4	6	0	141	0.404	57	0.912	*0.088	*0.0	*0.0	0.754	0.648	0.270
2A	17	1172	TYPE	2	3	3A	4	2	9	1	0	126	0.849	107	0.449	0.542	*0.009	*0.0	0.897	0.823	0.682
2C	17	1182	UNIFORM	1	1	3A	7	4	5	1	4	138	0.797	110	0.973	*0.009	*0.018	*0.0	0.764	0.755	0.133
2A	22	1205	VISION	1	3	3B	4	1	9	1	0	126	0.651	82	0.976	*0.024	*0.0	*0.0	0.720	0.671	0.164
2B	2	1219	WAX	1	1	3A	4	3	4	6	0	141	1.000	141	0.199	0.759	*0.043	*0.0	0.957	0.943	0.812
2B	22	1237	WITCH	1	1	3A	4	1	9	1	0	141	0.660	93	1.000	*0.0	*0.0	*0.0	0.742	0.430	0.0
2A	18	1244	WORRY	2	1	3B	4	1	2	8	0	126	0.873	110	*0.036	0.964	*0.0	*0.0	0.745	0.700	0.182
2C	8	1250	YELL	1	1	4A	4	1	2	8	0	138	0.920	127	*0.087	0.913	*0.0	*0.0	0.701	0.630	0.162

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 2, GRADE 9

												-----DATA FROM FIRST SENTENCE WRITTEN-----							--2ND SENTENCE--		
LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	A	TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(OT)	P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
2A	6	14	ACKNOWLEDGF	1	4	4A	4	1	-1	9	0	102	0.627	64	*0.016	0.984	*0.0	*0.0	0.453	0.344	0.091
2C	22	31	AFFECT	1	3	3A	4	1	1	9	0	97	0.175	17	*0.0	1.000	*0.0	*0.0	0.882	0.294	0.0
2A	14	57	ANCHOR	1	2	3B	4	1	6	4	0	102	0.706	72	0.597	0.403	*0.0	*0.0	0.833	0.777	0.696
2C	15	67	APPEAL	2	3	3A	4	1	5	5	0	97	0.577	56	0.357	0.643	*0.0	*0.0	0.821	0.768	0.558
2B	12	81	ARREST	2	2	4A	4	1	6	4	0	106	0.877	93	0.355	0.645	*0.0	*0.0	0.688	0.645	0.667
2A	21	90	ASSOCIATE	2	3	3B	4	1	3	7	0	102	0.559	57	0.456	0.544	*0.0	*0.0	0.877	0.842	0.792
2B	6	97	ATTIRE	1	6	4B	4	1	9	1	0	106	0.585	62	0.871	0.129	*0.0	*0.0	0.516	0.451	0.679
2A	12	162	BOTHER	2	1	4A	4	1	1	9	0	102	0.676	69	*0.116	0.884	*0.0	*0.0	0.768	0.768	0.528
2C	6	165	BRACE	1	3	4B	4	3	3	7	0	97	0.897	87	0.437	0.563	*0.0	*0.0	0.908	0.896	0.846
2B	14	175	BUBBLE	1	1	3A	4	1	7	3	0	106	0.840	89	0.921	*0.067	*0.011	*0.0	0.798	0.787	0.314
2C	10	182	BUY	2	1	3A	4	1	1	9	0	97	0.804	78	*0.064	0.936	*0.0	*0.0	0.679	0.576	0.356
2C	20	192	CAREER	2	3	4B	4	1	9	-1	0	97	0.536	52	1.000	*0.0	*0.0	*0.0	0.615	0.519	0.037
2A	26	202	CELL	1	1	3A	4	3	9	-1	0	102	0.549	56	0.982	*0.018	*0.0	*0.0	0.857	0.839	0.043
2B	26	207	CHANNEL	1	3	3B	4	1	9	1	0	106	0.670	71	0.972	*0.028	*0.0	*0.0	0.845	0.817	0.138
2B	20	208	CHAPTER	2	3	4A	4	1	9	-1	0	106	0.755	80	1.000	*0.0	*0.0	*0.0	0.637	0.599	0.042
2C	4	217	CHOCOLATE	1	1	4A	5	1	9	0	-1	97	0.948	92	0.457	*0.0	0.543	*0.0	0.772	0.761	0.614
2B	21	302	DESIGN	2	3	3A	4	1	5	5	0	106	0.708	75	0.520	0.480	*0.0	*0.0	0.827	0.801	0.750
2A	1	315	DIP	1	1	3A	4	3	2	8	0	102	0.941	96	0.573	0.427	*0.0	*0.0	0.927	0.917	0.580
2A	20	327	DIVORCE	2	3	4B	4	1	7	3	0	102	0.529	54	0.667	0.333	*0.0	*0.0	0.685	0.519	0.571
2A	5	329	DOCK	1	1	4A	4	3	9	1	0	102	0.814	83	0.602	0.398	*0.0	*0.0	0.855	0.770	0.797
2C	24	338	DRUNK	2	1	4B	7	1	2	1	7	97	0.515	50	*0.020	0.280	0.700	*0.0	0.860	0.860	0.837
2C	18	340	DRUG	2	1	3B	4	1	9	1	0	97	0.639	62	0.806	0.194	*0.0	*0.0	0.823	0.726	0.467
2A	3	353	ELDER	3	1	3B	5	1	2	0	8	102	0.833	85	0.671	*0.0	0.329	*0.0	0.635	0.494	0.405
2B	5	371	ESTIMATE	1	3	4A	4	1	3	7	0	106	0.849	90	0.478	0.522	*0.0	*0.0	0.667	0.656	0.661
2C	26	415	FIST	1	1	3B	4	1	9	-1	0	97	0.402	39	1.000	*0.0	*0.0	*0.0	0.513	0.359	0.143
2C	5	453	GIRDLF	1	4	4B	4	1	7	3	0	97	0.763	74	0.932	*0.068	*0.0	*0.0	0.568	0.528	0.308
2A	24	457	GLARE	1	3	4A	7	1	5	4	1	102	0.539	55	0.836	0.164	*0.0	*0.0	0.727	0.709	0.564
2B	24	465	GRADUATE	2	3	4A	7	1	3	3	4	106	0.708	75	0.400	0.507	*0.093	*0.0	0.893	0.880	0.682
2A	25	470	GRIN	1	2	4B	4	1	4	6	0	102	0.520	53	0.566	0.434	*0.0	*0.0	0.566	0.547	0.621
2A	13	491	HEDGE	1	3	3A	4	2	9	1	0	102	0.667	68	0.941	*0.059	*0.0	*0.0	0.632	0.529	0.472
2B	13	511	HUM	1	1	3B	4	1	4	6	0	106	0.764	81	0.222	0.778	*0.0	*0.0	0.667	0.630	0.373
2C	21	519	HUT	2	1	3A	4	1	9	-1	0	97	0.412	40	1.000	*0.0	*0.0	*0.0	0.425	0.250	0.0
2B	25	534	INCENSE	1	4	4A	4	3	5	5	0	106	0.462	49	0.980	*0.020	*0.0	*0.0	0.510	0.469	0.174
2B	1	540	INDIVIDUAL	2	3	3A	5	1	7	0	3	106	0.906	96	0.677	*0.021	0.302	*0.0	0.813	0.667	0.750
2C	13	561	JAW	1	1	3A	4	1	9	1	0	97	0.639	62	0.984	*0.016	*0.0	*0.0	0.581	0.533	0.242
2B	10	562	JOB	2	1	3A	4	1	9	1	0	106	0.877	93	0.957	*0.043	*0.0	*0.0	0.699	0.603	0.089
2A	16	577	KNOT	1	1	3B	4	3	7	3	0	102	0.686	70	0.871	0.129	*0.0	*0.0	0.800	0.743	0.404
2A	2	588	LAST	3	1	1A	8	3	1	2	7	102	0.971	99	*0.020	*0.071	0.909	*0.0	0.939	0.909	0.344
2A	7	610	LIBERAL	1	5	4A	5	3	3	0	7	102	0.539	55	0.236	*0.0	0.764	*0.0	0.745	0.636	0.371
2B	16	624	LINK	1	7	3B	4	3	4	6	0	106	0.745	79	0.747	0.253	*0.0	*0.0	0.772	0.721	0.544
2A	11	652	MAJOR	2	1	4A	7	3	3	2	5	102	0.784	80	0.487	*0.063	0.450	*0.0	0.950	0.938	0.867

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 2, GRADE 9

												-----DATA FROM FIRST SENTENCE WRITTEN-----							--2ND SENTENCE--		
LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	VECT. A	TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(OT)	P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
2C	1	670	MATURE	1	4	4A	6	1	0	5	5	97	0.856	83	*0.0	0.169	0.831	*0.0	0.783	0.675	0.518
2C	16	698	MIST	1	3	3A	4	1	9	-1	0	97	0.577	56	0.982	*0.018	*0.0	*0.0	0.607	0.410	0.087
2C	2	709	MORAL	2	4	3A	5	1	1	0	9	97	0.742	72	0.667	*0.0	0.333	*0.0	0.667	0.528	0.421
2C	11	712	MOTIVE	1	4	3B	7	1	8	-1	1	97	0.629	61	1.000	*0.0	*0.0	*0.0	0.557	0.360	0.045
2C	25	713	MOTOR	1	1	4A	4	1	8	2	0	97	0.443	43	0.953	*0.047	*0.0	*0.0	0.767	0.627	0.222
2A	10	761	OFFICER	2	1	3A	4	1	9	-1	0	102	0.794	81	0.975	*0.025	*0.0	*0.0	0.667	0.654	0.057
2C	14	794	PARTNER	2	1	3B	4	1	9	-1	0	97	0.660	64	0.984	*0.0	*0.016	*0.0	0.469	0.422	0.185
2A	4	827	PLANE	2	1	4B	4	3	9	1	0	102	0.873	89	0.944	*0.056	*0.0	*0.0	0.888	0.663	0.119
2C	12	839	POLICE	2	1	4A	4	1	9	1	0	97	0.732	71	0.859	0.141	*0.0	*0.0	0.803	0.732	0.558
2A	9	844	POLL	1	4	4B	4	1	8	2	0	102	0.549	56	0.911	*0.089	*0.0	*0.0	0.732	0.464	0.269
2A	27	882	PROGRESS	2	4	3A	4	1	7	3	0	102	0.520	53	0.887	0.113	*0.0	*0.0	0.698	0.698	0.622
2B	9	906	QUIVER	1	3	4B	4	3	2	8	0	106	0.698	74	0.149	0.851	*0.0	*0.0	0.716	0.635	0.468
2B	11	926	RELATIVE	2	3	3A	5	4	7	0	3	106	0.736	78	0.769	*0.0	0.231	*0.0	0.769	0.679	0.736
2B	27	936	RESERVE	2	4	3A	4	1	6	4	0	106	0.594	63	0.238	0.730	*0.032	*0.0	0.873	0.857	0.574
2B	7	943	REVEREND	1	4	4B	5	1	-1	0	9	106	0.387	41	0.854	*0.0	0.146	*0.0	0.488	0.244	0.300
2C	27	944	RICE	2	1	3A	4	1	9	-1	0	97	0.433	42	1.000	*0.0	*0.0	*0.0	0.619	0.595	0.160
2C	9	956	ROVE	1	3	4A	4	1	-1	9	0	97	0.340	33	*0.0	1.000	*0.0	*0.0	0.424	0.273	0.0
2A	19	967	SCARE	2	1	3A	4	1	1	9	0	102	0.618	63	0.206	0.794	*0.0	*0.0	0.714	0.619	0.590
2B	19	972	SCREAM	2	1	3A	4	1	1	9	0	106	0.774	82	0.305	0.695	*0.0	*0.0	0.780	0.719	0.644
2C	3	973	SCREEN	1	1	4A	4	3	9	1	0	97	0.907	88	0.807	0.159	*0.034	*0.0	0.920	0.897	0.380
2C	19	1002	SHIFT	2	3	3B	4	1	9	1	0	97	0.536	52	0.635	0.365	*0.0	*0.0	0.885	0.847	0.727
2A	15	1033	SNAKE	2	1	3B	4	1	9	-1	0	102	0.716	73	0.986	*0.014	*0.0	*0.0	0.658	0.644	0.234
2A	23	1034	SNATCH	1	2	3B	4	1	1	9	0	102	0.549	56	*0.036	0.964	*0.0	*0.0	0.464	0.411	0.348
2C	7	1039	SOLITARY	1	4	4A	5	1	2	0	8	97	0.649	63	0.127	*0.0	0.873	*0.0	0.603	0.460	0.207
2B	3	1049	SPARE	2	4	2A	6	4	0	8	2	106	0.953	101	*0.119	0.465	0.416	*0.0	0.950	0.921	0.828
2B	15	1053	SPEAR	2	1	3A	4	1	8	2	0	106	0.811	86	0.791	0.209	*0.0	*0.0	0.814	0.721	0.645
2B	4	1057	SPIT	2	1	4B	4	3	5	5	0	106	0.745	79	*0.114	0.887	*0.0	*0.0	0.722	0.671	0.585
2B	23	1063	STAIN	1	3	3A	4	1	3	7	0	106	0.660	70	0.657	0.343	*0.0	*0.0	0.771	0.756	0.642
2B	18	1074	STEER	2	1	3B	4	3	1	9	0	106	0.764	81	0.432	0.568	*0.0	*0.0	0.889	0.877	0.845
2A	8	1111	SWAMP	1	1	4A	4	3	9	1	0	102	0.716	73	0.781	0.219	*0.0	*0.0	0.808	0.781	0.632
2B	17	1128	TENTH	1	2	3A	5	1	1	0	9	106	0.792	84	*0.083	*0.012	0.905	*0.0	0.714	0.630	0.132
2C	23	1163	TRIUMPH	1	3	3B	4	1	8	2	0	97	0.330	32	0.625	0.375	*0.0	*0.0	0.719	0.563	0.611
2B	8	1171	TWINE	1	3	4A	4	1	4	6	0	106	0.557	59	0.746	0.254	*0.0	*0.0	0.610	0.525	0.548
2A	17	1172	TYPE	2	3	3A	4	2	9	1	0	102	0.667	68	0.456	0.544	*0.0	*0.0	0.971	0.956	0.846
2C	17	1182	UNIFORM	1	1	3A	7	4	5	1	4	97	0.629	61	0.869	*0.033	*0.098	*0.0	0.770	0.737	0.600
2A	22	1205	VISION	1	3	3B	4	1	9	1	0	102	0.588	60	0.933	*0.067	*0.0	*0.0	0.800	0.783	0.234
2B	2	1219	WAX	1	1	3A	4	3	4	6	0	106	0.953	101	0.337	0.485	0.178	*0.0	0.941	0.911	0.837
2B	22	1237	WITCH	1	1	3A	4	1	9	1	0	106	0.604	64	0.969	*0.031	*0.0	*0.0	0.609	0.437	0.107
2A	18	1244	WORRY	2	1	3B	4	1	2	8	0	102	0.657	67	*0.060	0.940	*0.0	*0.0	0.701	0.611	0.366
2C	8	1250	YELL	1	1	4A	4	1	2	8	0	97	0.845	82	*0.085	0.915	*0.0	*0.0	0.610	0.573	0.489

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 3, GRADE 9

												-----DATA FROM FIRST SENTENCE WRITTEN-----							--2ND SENTENCE--		
LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	A	TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(OT)	P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
3C	8	37	AGED	2	7	6	6	1	0	5	5	138	0.891	123	*0.0	0.626	0.374	*0.0	0.829	0.691	0.635
3B	6	60	ANIMATE	1	6	6	6	1	0	9	1	147	0.490	72	*0.0	0.889	*0.111	*0.0	0.639	0.445	0.125
3B	26	101	AUTO	1	1	5A	5	1	9	0	1	147	0.653	96	0.969	*0.0	*0.031	*0.0	0.604	0.417	0.275
3C	3	111	BADGER	3	4	7	4	4	9	1	0	138	0.471	65	0.723	0.277	*0.0	*0.0	0.585	0.493	0.563
3C	19	139	BIAS	1	7	6	4	3	9	-1	0	138	0.406	56	0.179	0.571	0.250	*0.0	0.500	0.482	0.630
3A	7	151	BLOUSE	1	2	7	4	1	9	-1	0	143	0.937	134	0.978	*0.022	*0.0	*0.0	0.552	0.500	0.239
3A	8	176	BUFFALO	2	1	6	4	1	9	-1	0	143	0.755	108	0.944	*0.056	*0.0	*0.0	0.759	0.592	0.234
3B	7	181	BUSTLE	1	5	7	4	4	6	4	0	147	0.361	53	0.774	0.226	*0.0	*0.0	0.472	0.453	0.500
3B	4	190	CARDINAL	1	3	6	5	3	7	0	3	147	0.844	124	0.895	*0.0	*0.105	*0.0	0.903	0.870	0.176
3C	6	210	CHART	1	1	5B	4	1	9	1	0	138	0.928	128	0.742	0.258	*0.0	*0.0	0.867	0.836	0.626
3B	5	216	CHISEL	1	2	6	4	1	4	6	0	147	0.769	113	0.726	0.274	*0.0	*0.0	0.885	0.850	0.760
3C	7	230	CLOWN	1	1	7	4	1	9	-1	0	138	0.949	131	0.756	0.244	*0.0	*0.0	0.962	0.962	0.619
3C	17	237	COMMENT	2	3	6	4	1	7	3	0	138	0.812	112	0.813	0.188	*0.0	*0.0	0.714	0.687	0.610
3A	25	263	COSTUME	1	3	5B	4	1	9	1	0	143	0.776	111	0.973	*0.018	*0.009	*0.0	0.703	0.667	0.176
3B	25	274	CROUCH	1	3	5B	4	1	1	9	0	147	0.490	72	*0.069	0.931	*0.0	*0.0	0.528	0.417	0.333
3A	4	285	DAZZLE	1	3	5A	4	1	1	9	0	143	0.741	106	0.217	0.774	*0.009	*0.0	0.745	0.650	0.362
3A	15	309	DIAL	1	3	6	4	1	9	1	0	143	0.818	117	0.265	0.718	*0.017	*0.0	0.915	0.659	0.870
3A	24	313	DIGEST	1	3	7	4	1	2	8	0	143	0.818	117	0.368	0.632	*0.0	*0.0	0.949	0.923	0.843
3A	5	328	DIZZY	1	2	6	6	1	0	1	9	143	0.951	136	*0.0	*0.0	1.000	*0.0	0.824	0.780	0.057
3B	15	347	ECLIPSE	1	3	6	4	1	8	2	0	147	0.735	108	0.944	*0.056	*0.0	*0.0	0.556	0.500	0.389
3B	1	367	EPIDEMIC	1	4	8	5	1	8	0	2	147	0.701	103	0.971	*0.0	*0.029	*0.0	0.534	0.379	0.256
3A	12	369	EQUIVALENT	1	4	7	5	1	3	0	7	143	0.748	107	0.206	*0.0	0.794	*0.0	0.617	0.514	0.291
3C	1	379	EXEMPT	1	5	6	6	1	0	5	5	138	0.377	52	*0.0	0.269	0.731	*0.0	0.615	0.442	0.304
3B	12	381	EXPEDIENT	1	7	7	5	1	7	0	3	147	0.095	14	*0.0	0.071	0.929	*0.0	0.571	0.428	0.0
3C	25	384	EXTRACT	1	4	5B	4	1	4	6	0	138	0.616	85	0.541	0.459	*0.0	*0.0	0.741	0.635	0.852
3C	15	419	FLIRT	1	3	6	4	1	4	6	0	138	0.761	105	0.410	0.590	*0.0	*0.0	0.686	0.657	0.609
3A	13	423	FOIL	1	6	5B	4	3	4	6	0	143	0.874	125	0.720	0.280	*0.0	*0.0	0.856	0.824	0.738
3A	21	436	FRAY	1	6	6	4	2	7	3	0	143	0.392	56	0.232	0.768	*0.0	*0.0	0.607	0.535	0.500
3C	23	442	FUNCTION	2	4	5A	4	1	5	5	0	138	0.783	108	0.463	0.537	*0.0	*0.0	0.750	0.703	0.671
3B	13	476	GROWL	1	2	5A	4	1	3	7	0	147	0.721	106	0.274	0.726	*0.0	*0.0	0.642	0.623	0.515
3B	24	502	HOIST	1	4	7	4	1	2	8	0	147	0.463	68	*0.074	0.926	*0.0	*0.0	0.515	0.383	0.577
3B	21	504	HONEYCOMB	1	3	6	4	1	9	-1	0	147	0.503	74	0.986	*0.014	*0.0	*0.0	0.541	0.352	0.115
3A	1	509	HUDDLE	1	3	7	4	1	1	9	0	143	0.909	130	0.715	0.285	*0.0	*0.0	0.854	0.816	0.736
3B	23	530	IMPRESS	2	3	5A	4	1	1	9	0	147	0.707	104	*0.019	0.981	*0.0	*0.0	0.721	0.615	0.188
3B	20	551	INTELLECTUAL	2	5	7	5	1	3	0	7	147	0.490	72	0.375	*0.0	0.625	*0.0	0.583	0.514	0.486
3C	21	559	ITCH	1	2	6	4	1	8	2	0	138	0.841	116	0.681	0.319	*0.0	*0.0	0.819	0.776	0.456
3C	4	622	LIMP	1	1	5B	6	4	0	4	6	138	0.899	124	0.306	0.435	0.250	*0.008	0.774	0.717	0.764
3A	20	631	LOAN	2	1	7	4	1	9	1	0	143	0.853	122	0.459	0.533	*0.008	*0.0	0.828	0.787	0.844
3A	14	678	MELLOW	1	5	5A	6	1	0	1	9	143	0.664	95	*0.0	*0.011	0.989	*0.0	0.747	0.589	0.125
3A	18	735	NIBBLE	1	1	6	4	1	3	7	0	143	0.769	110	*0.109	0.891	*0.0	*0.0	0.673	0.600	0.470
3C	12	742	NORTHEAST	1	2	7	5	1	3	0	7	138	0.768	106	0.415	*0.0	0.330	0.255	0.840	0.585	0.581

TABLE 4.3 DATA FROM NORMATIVE STUDY (CONTINUED)

LEVEL 3, GRADE 9

												-----DATA FROM FIRST SENTENCE WRITTEN-----							--2ND SENTENCE--		
LEVEL, FORM	I #	WORD #	WORD	S	D	TH	G C	S M	MGF N	VECT. V	A	TOT. N	% VALID	BASE N	P(N)	P(V)	P(A)	P(OT)	P(2)	P(VAL. 2ND R)	P(GRAM. CHANGE)
3C	26	746	NOVEL	1	3	5A	5	4	8	0	2	138	0.717	99	0.879	*0.0	*0.121	*0.0	0.667	0.556	0.527
3A	6	762	OFFICIAL	2	3	3A	5	1	5	0	5	143	0.944	135	0.459	*0.0	0.541	*0.0	0.941	0.918	0.758
3B	18	775	OUTRAGE	1	5	6	4	1	7	3	0	147	0.741	109	0.890	*0.110	*0.0	*0.0	0.596	0.495	0.389
3C	13	777	OVERTURN	1	1	5A	4	1	1	9	0	138	0.826	114	*0.088	0.912	*0.0	*0.0	0.702	0.684	0.244
3A	16	791	PARROT	1	2	5B	4	1	9	-1	0	143	0.853	122	0.975	*0.025	*0.0	*0.0	0.574	0.517	0.159
3C	24	798	PATTER	1	1	7	4	1	6	4	0	138	0.420	58	0.810	0.190	*0.0	*0.0	0.517	0.362	0.619
3A	3	805	PENITENT	1	6	7	5	1	4	0	6	143	0.168	23	0.174	*0.0	0.826	*0.0	0.458	0.375	0.222
3C	18	807	PENSION	1	7	6	4	1	9	1	0	138	0.659	91	1.000	*0.0	*0.0	*0.0	0.582	0.483	0.091
3A	10	922	PIKE	1	4	7	4	3	9	-1	0	143	0.280	40	1.000	*0.0	*0.0	*0.0	0.650	0.375	0.0
3B	16	828	PLANK	1	2	5A	4	3	9	1	0	147	0.735	108	1.000	*0.0	*0.0	*0.0	0.583	0.555	0.100
3B	8	836	POETIC	1	5	6	5	1	-1	0	9	147	0.707	104	*0.0	*0.0	1.000	*0.0	0.538	0.509	0.0
3B	22	867	PRESSURE	2	3	5A	4	1	9	1	0	147	0.789	116	0.862	*0.138	*0.0	*0.0	0.971	0.871	0.327
3C	5	873	PRIMARY	2	5	5B	5	3	1	0	9	138	0.848	117	*0.077	*0.0	0.923	*0.0	0.846	0.803	0.234
3A	22	881	PROGRAM	2	2	5B	4	1	9	1	0	143	0.881	126	0.833	0.167	*0.0	*0.0	0.921	0.905	0.439
3C	22	883	PROJECT	2	4	5A	4	3	9	1	0	138	0.768	106	0.821	0.179	*0.0	*0.0	0.925	0.840	0.596
3C	16	891	PROPOSITION	1	4	5B	4	1	9	-1	0	138	0.681	94	0.989	*0.011	*0.0	*0.0	0.511	0.447	0.214
3B	10	901	PYRAMID	1	3	7	4	1	9	-1	0	147	0.816	120	0.992	*0.008	*0.0	*0.0	0.708	0.700	0.071
3C	2	910	RADICAL	1	5	7	5	3	-1	0	9	138	0.638	88	0.273	*0.0	0.727	*0.0	0.670	0.602	0.472
3A	23	970	SCISSOR	1	2	5A	4	1	9	-1	0	143	0.776	111	0.919	*0.072	*0.009	*0.0	0.757	0.712	0.354
3A	11	971	SCOOP	1	3	6	4	1	2	8	0	143	0.902	129	0.558	0.442	*0.0	*0.0	0.953	0.945	0.607
3B	14	1027	SLEIGH	1	1	5A	4	1	8	2	0	147	0.646	95	0.937	*0.063	*0.0	*0.0	0.758	0.706	0.463
3B	11	1036	SOCKET	1	3	6	4	1	9	-1	0	147	0.810	119	1.000	*0.0	*0.0	*0.0	0.706	0.572	0.044
3C	10	1059	SPLINTER	1	3	7	4	1	7	3	0	138	0.884	122	0.893	*0.107	*0.0	*0.0	0.754	0.697	0.506
3C	11	1064	STAMMER	1	4	6	4	1	-1	9	0	138	0.478	66	0.121	0.879	*0.0	*0.0	0.606	0.500	0.364
3A	17	1088	STROLL	1	4	6	4	1	1	9	0	143	0.825	118	0.678	0.322	*0.0	*0.0	0.627	0.508	0.650
3A	9	1090	STRUCTURE	3	4	7	4	1	9	-1	0	143	0.874	125	0.984	*0.016	*0.0	*0.0	0.784	0.776	0.144
3C	14	1110	SUSPICION	1	3	5B	4	1	9	1	0	138	0.659	91	1.000	*0.0	*0.0	*0.0	0.626	0.516	0.021
3B	17	1115	TAG	1	1	6	4	3	8	2	0	147	0.871	128	0.773	0.227	*0.0	*0.0	0.969	0.922	0.483
3B	3	1118	TARRY	1	4	5A	6	4	0	9	1	147	0.367	54	*0.0	0.963	*0.037	*0.0	0.407	0.333	0.0
3A	2	1137	TIDY	1	3	10	6	3	0	1	9	143	0.944	135	*0.0	0.296	0.704	*0.0	0.852	0.770	0.625
3B	2	1141	TINGE	1	4	8	4	1	6	4	0	147	0.286	42	0.810	0.190	*0.0	*0.0	0.524	0.286	0.250
3B	9	1150	TOUR	1	2	7	4	1	8	2	0	147	0.912	134	0.828	0.172	*0.0	*0.0	0.784	0.657	0.534
3C	9	1154	TRANCE	1	3	7	4	1	8	2	0	138	0.775	107	0.981	*0.019	*0.0	*0.0	0.551	0.449	0.146
3B	19	1192	UPSET	2	1	5A	7	1	1	3	6	147	0.837	123	*0.057	0.260	0.683	*0.0	0.959	0.935	0.713
3C	20	1208	VOLUNTEER	2	3	7	4	1	9	1	0	138	0.862	119	0.294	0.479	0.227	*0.0	0.974	0.849	0.891
3A	19	1210	VULGAR	1	4	5B	5	1	1	0	9	143	0.685	98	*0.0	*0.0	1.000	*0.0	0.633	0.592	0.0
3A	26	1253	ZERO	1	2	5A	4	3	9	-1	0	143	0.804	115	0.304	*0.087	0.609	*0.0	0.852	0.748	0.570

A [ambiguous], and C [capitalized]. Nevertheless, responses coded as A or C were relatively infrequent; the code C occurred with significant frequencies (ten or greater) only for the following words: TOTAL, MISS, ROYAL, REVEREND, LINK, BUFFALO, PIKE, DIAL, HONEYCOMB, and NORTHEAST.

It would not be particularly rewarding to study the variation in percentages of valid responses as a function of Thorndike frequency-rank indices because these indices are relatively homogeneous within levels. It is useful, however, to examine this variation in relation to Dale ratings. A summarization of relevant data is given in Table 4.4, where it will be seen that median proportions of valid responses tend to be highly related to the Dale ratings. Nevertheless, the proportions for given values of Dale ratings vary widely. It may be concluded that the Dale ratings give only limited indication as to whether children at a given grade will be successful, on the average, in using a given word in a sentence.

Because the same words (in Level 2 forms) were given to samples at both grades 6 and 9, it is possible to study the relationship between the proportions of valid responses for these words at these grade levels. The Pearsonian correlation between these sets of proportions is .63; however, the scatterplot (Figure 4.1) of the points reveals a most peculiar form of relationship. The majority of the points are in the upper right quadrant and are not very far from the line of equivalence; the deviations can be taken to represent largely sampling error. A few words with relatively high proportions of valid responses at grade 6 actually show a considerable decrement at the 9th grade: FIST, HUT, RICE, MOTOR, DRUNK. The words AFFECT, TRIUMPH, REVEREND, and ROVE show low proportions at both grade levels. On the other hand, a considerable number of words shows very substantial (and statistically significant, at the 1% level) increases in proportions of valid responses over the two

Table 4.4

Median and Ranges of Proportions of Valid Responses Classified by Dale Ratings, with Words at Lower Extremes (L), at or near Median (Mdn), and Upper Extremes (U)

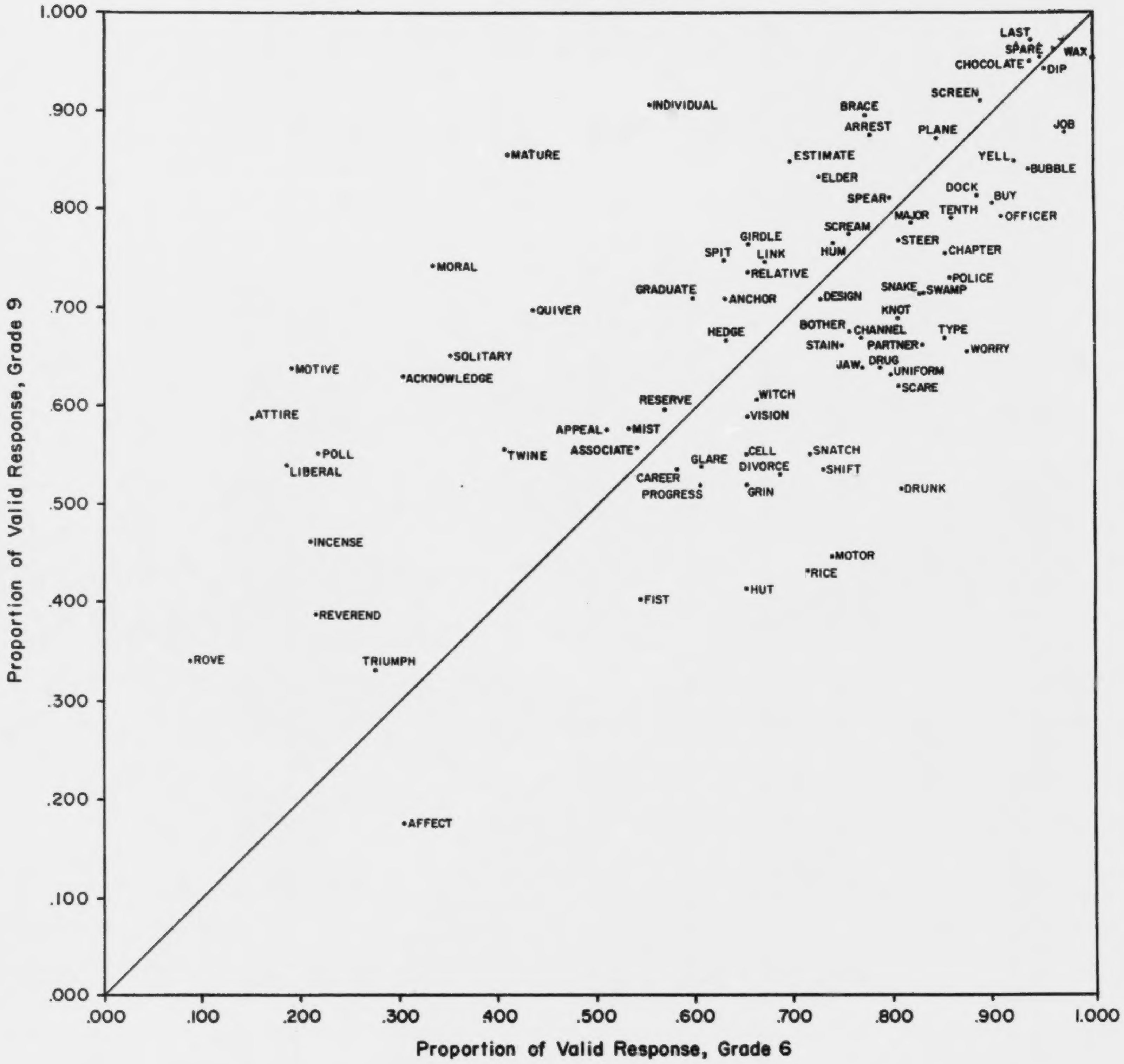
	Level 1				Level 2							Level 3			
	Grade 3				Grade 6				Grade 9			Grade 9			
Dale Rating	n*	L	Mdn	U	n	L	Mdn	U	L	Mdn	U	n	L	Mdn	U
1	60	.127 PATIENT	.451 PICK	.863 JUMP	37	.543 FIST	.804 DRUNK	1.000 WAX	.402 FIST	.745 SPIT	.971 LAST	12	.420 PATTER	.831 UPSET	.949 CLOWN
2	5	.092 COMMAND	.265 INTEREST	.735 BROKE	5	.627 ANCHOR	.714 SNATCH	.858 TENTH	.520 GRIN	.706 ANCHOR	.877 ARREST	12	.721 GROWL	.822 ITCH	.951 DIZZY
3	13	.010 PROMPT	.167 DISEASE	.337 BALANCE	24	.087 ROVE	.615 HEDGE	.851 CHAPTER	.175 AFFECT	.624 STAIN	.906 INDIVIDUAL	23	.490 CROUCH	.810 COMMENT	.944 OFFICIAL
4	2	.059 EFFECT	.078 --	.098 ISSUE	12	.188 MOTIVE	.340 SOLITARY	.943 SPARE	.387 REVEREND	.628 MOTIVE	.953 SPARE	15	.280 PIKE	.681 PROPOSITION	.874 STRUCTURE
5	--	--	--	--	1	--	.183 LIBERAL	--	--	.539 LIBERAL	--	8	.361 BUSTLE	.651 MELLOW	.848 PRIMARY
6	1	--	.039 RENDER	--	1	--	.149 ATTIRE	--	--	.585 ATTIRE	--	4	.168 PENITENT	.441 ANIMATE	.874 FOIL
7	--	--	--	--	1	--	.667 LINK	--	--	.745 LINK	--	4	.095 EXPEDIENT	.532 PENSION	.891 AGED
All	81	.010 PROMPT	.367 SEASON	.863 JUMP	81	.087 ROVE	.722 ELDER	1.000 WAX	.175 AFFECT	.670 CHANNEL	.971 LAST	78	.095 EXPEDIENT	.768 PROJECT	.951 DIZZY

*n = number of words

Figure 4.1

Scatterplot for Proportions of Valid Responses, Level 2 Words,

Grade 6 vs. Grade 9



grade levels: INDIVIDUAL, MATURE, QUIVER, MORAL, SOLITARY, ACKNOWLEDGE, MOTIVE, ATTIRE, POLL, LIBERAL, INCENSE, REVEREND, and ROVE. This suggests that most of the words that caused trouble at the 6th grade were much better known by the 9th grade students.

Empirical data on part-of-speech use, "first sentence written"

In Table 4.3, the columns headed P(N), P(V), P(A), and P(OT) show, respectively, the proportions with which each word was used as a noun, as a verb, as an adjective, or as some other part of speech in the first sentence written for the word. In every case, the base for these proportions is indicated in the column headed BASE N; this is the number of "valid responses" as defined in the preceding section. (The meaning of the asterisks attached to some of the proportions will be explained below.)

There were few instances in which the words were used as parts of speech other than noun, verb, or adjective. The only significant proportions occur for BETTER (.182) and for NORTHEAST (.255) for use as adverbs.

A certain mathematical transformation of the proportions makes it possible to represent graphically the relative uses of the words as nouns, verbs, or adjectives.[1] The resulting plots are shown in Figures 4.2a-d. Words used solely as nouns, verbs, or adjectives are to be found at the corners of the spherical triangle; words used in various proportions as either of two

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[1] First, any proportions for "other" parts of speech are ignored; that is, the proportions for N, V, and A are normalized so that they total unity. Then the square roots of these normalized proportions are computed as constituting a three-element row vector. The coordinates of the corresponding point in a unit circle are then found by multiplying this vector by the matrix:

$$\left\| \begin{matrix} -\sqrt{.75} & -.5 \\ \sqrt{.75} & -.5 \\ 0 & 1.0 \end{matrix} \right\|$$

This transformation produces a perspective projection of a right spherical triangle onto a plane.

parts of speech are to be found along the sides of the triangle, placed so as to indicate the relative proportions; words used in some proportion in all three parts of speech are to be found in the interior of the figure. (All points are to be considered as being on the surface of a sphere.)

Inspection of these figures makes it possible readily to identify words that are usually perceived in one part of speech and relatively seldom perceived in another part of speech, or in fact, to identify words that are about equally often used in two parts of speech. A word that is used equally often in three parts of speech would appear in the exact center of the figure; a word that is used equally often in two parts of speech (but never in a third) would appear on the side of the figure halfway between the corners representing the two parts of speech.

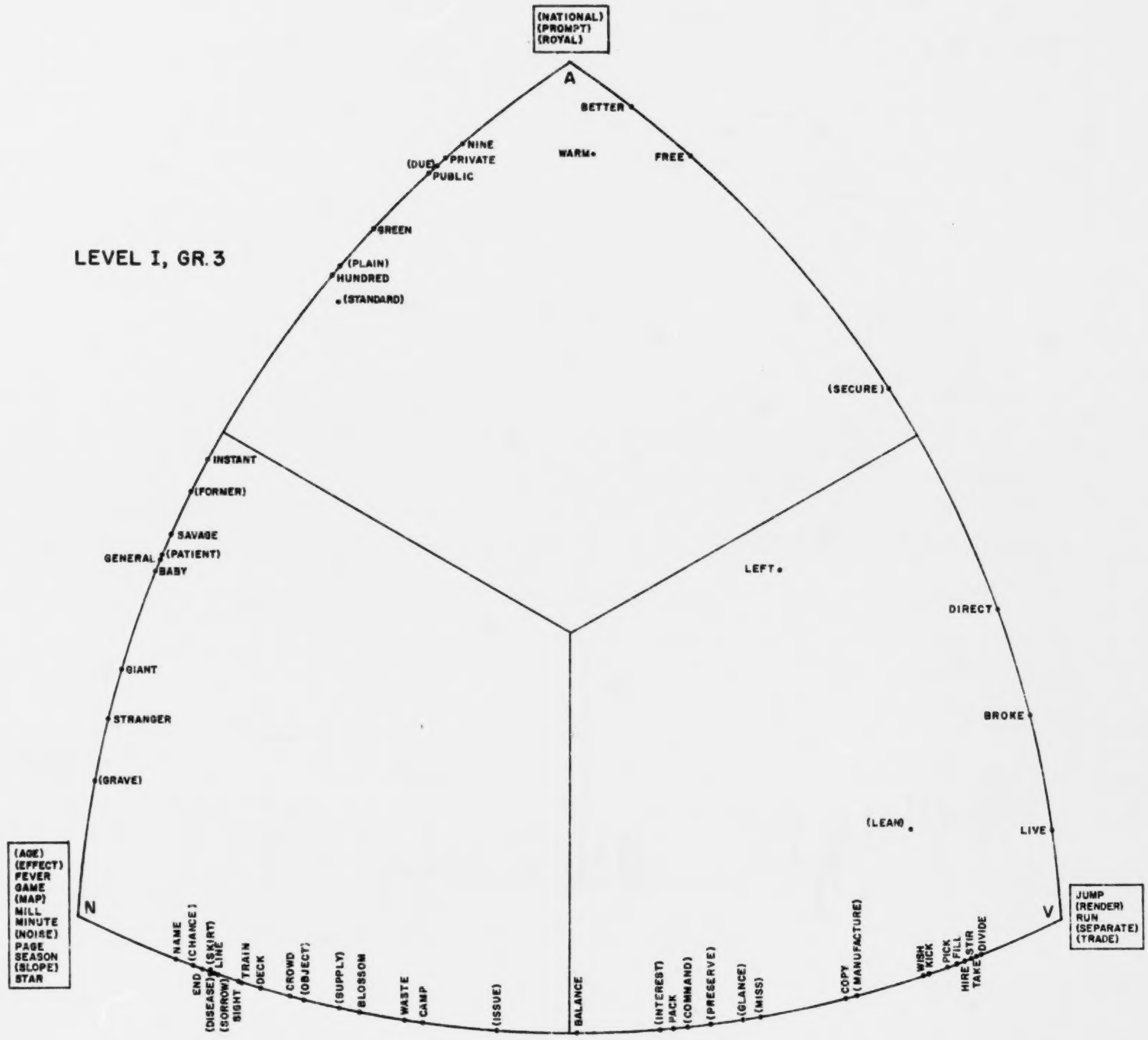
In the figures, words for which the proportions are based on fewer than 30 cases are enclosed in parentheses.

As expected, the majority of words are of the NV type in terms of children's use of them in sentences; these words are represented along the bottom side of each figure. Fewer words are of the NA type, and fewer still are of the VA or NVA types.

The data suggest that with increasing grade level, words tend to be used in a greater number of grammatical functions. At grade 3, 20 of the 81 words are used only in a single grammatical function. At grade 6, only 12 of the 81 words in Level 2 forms are used in a single grammatical function, whereas at grade 9, only 8 of these same words are so used. Of the 78 words in the Level 3 forms, only 8 are used in a single grammatical function. Furthermore, there is evidence from the comparison of grade 6 and grade 9 data at Level 2 that MGF words tend to have a more even distribution among grammatical functions at the upper grade level. If we consider only the Level 2 words that occur solely in the same two grammatical functions

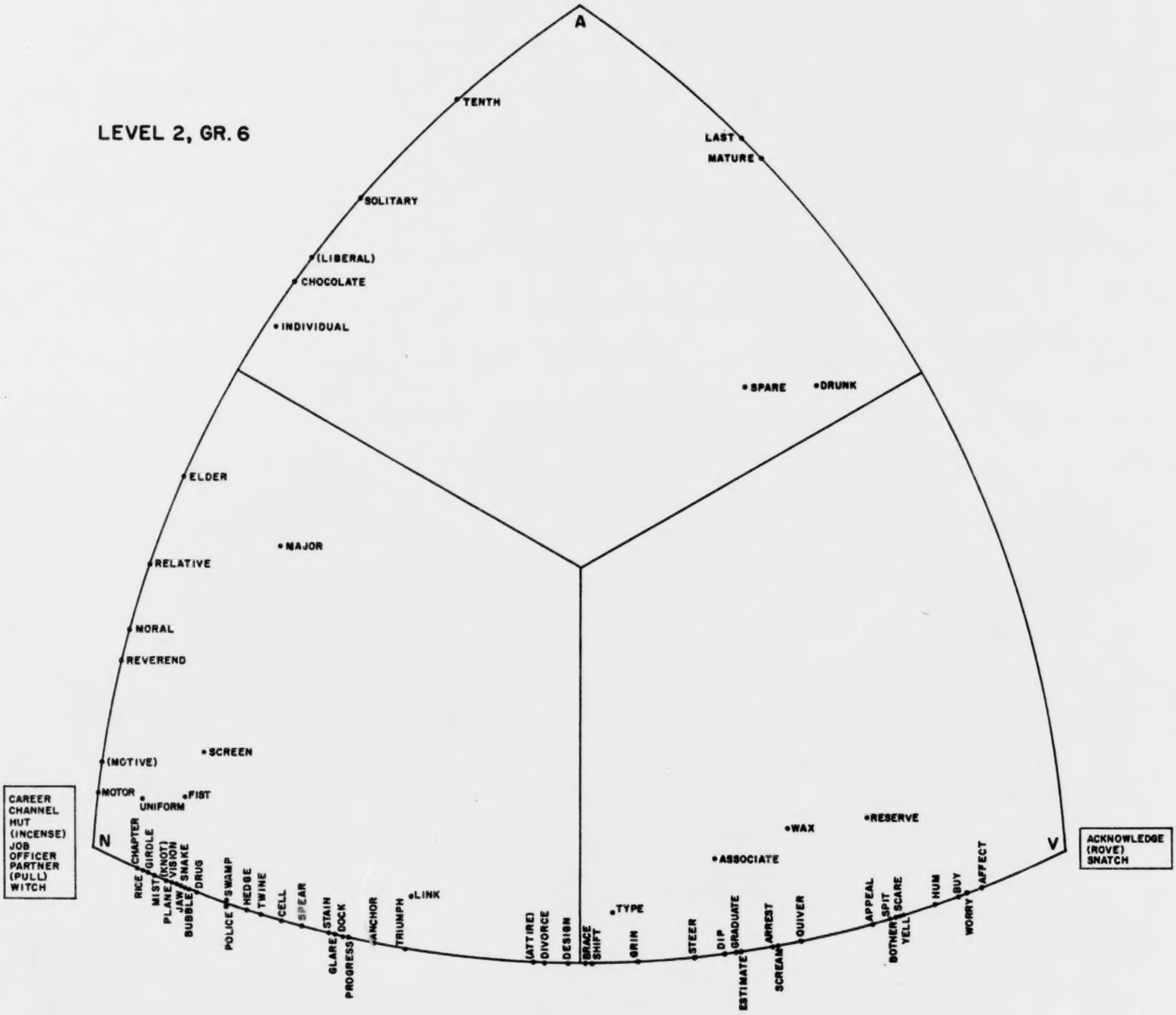
Figure 4.2

Graphical Representation of Relative Proportions With Which Words Were Used as Nouns, Verbs, or Adjectives in a Sentence Construction Task, at Level 1, Grade 3 (a), Level 2, Grade 6 (b), Level 2, Grade 9 (c), and Level 3, Grade 9 (d).



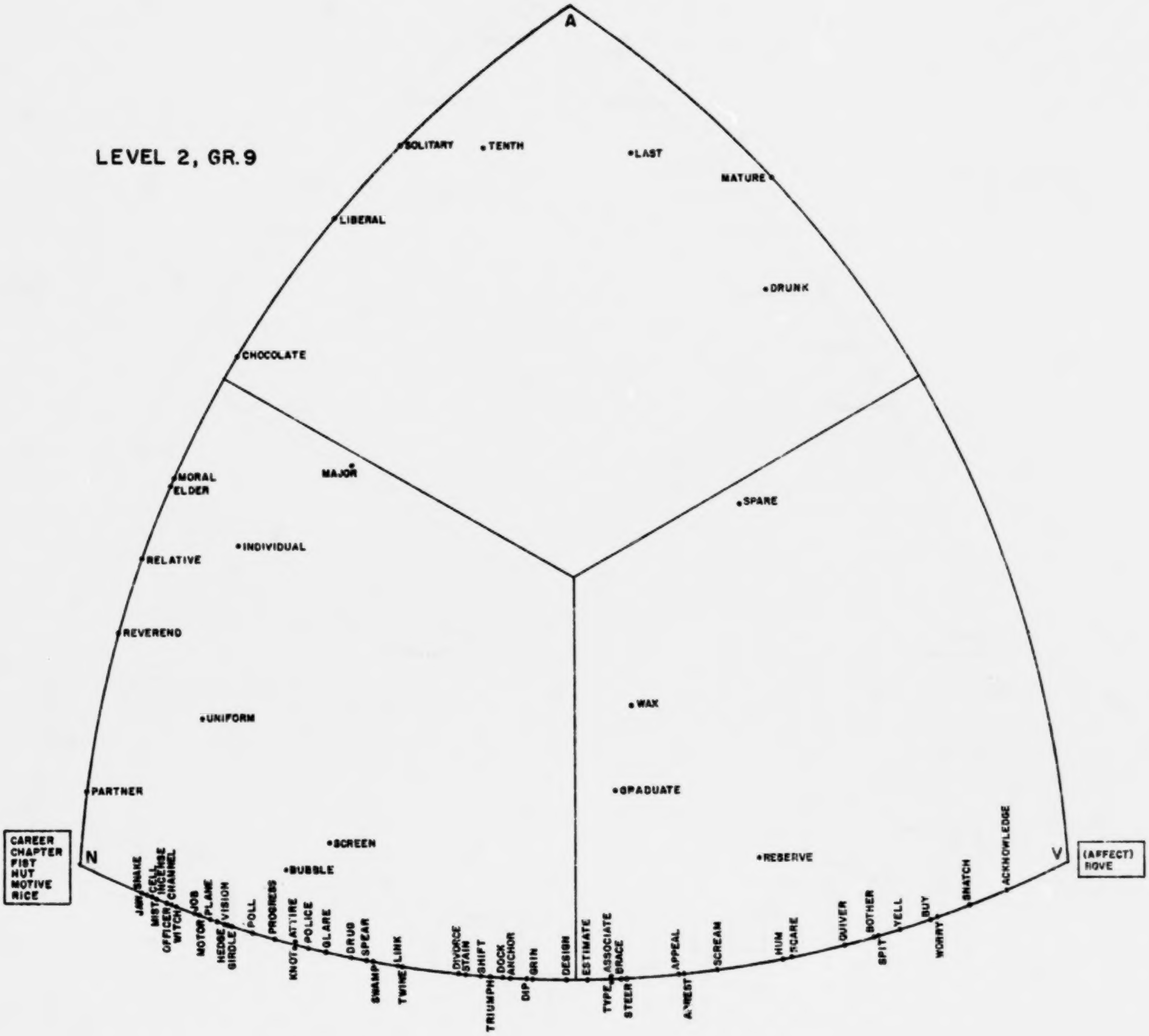
(a)

Figure 4.2 (cont.)



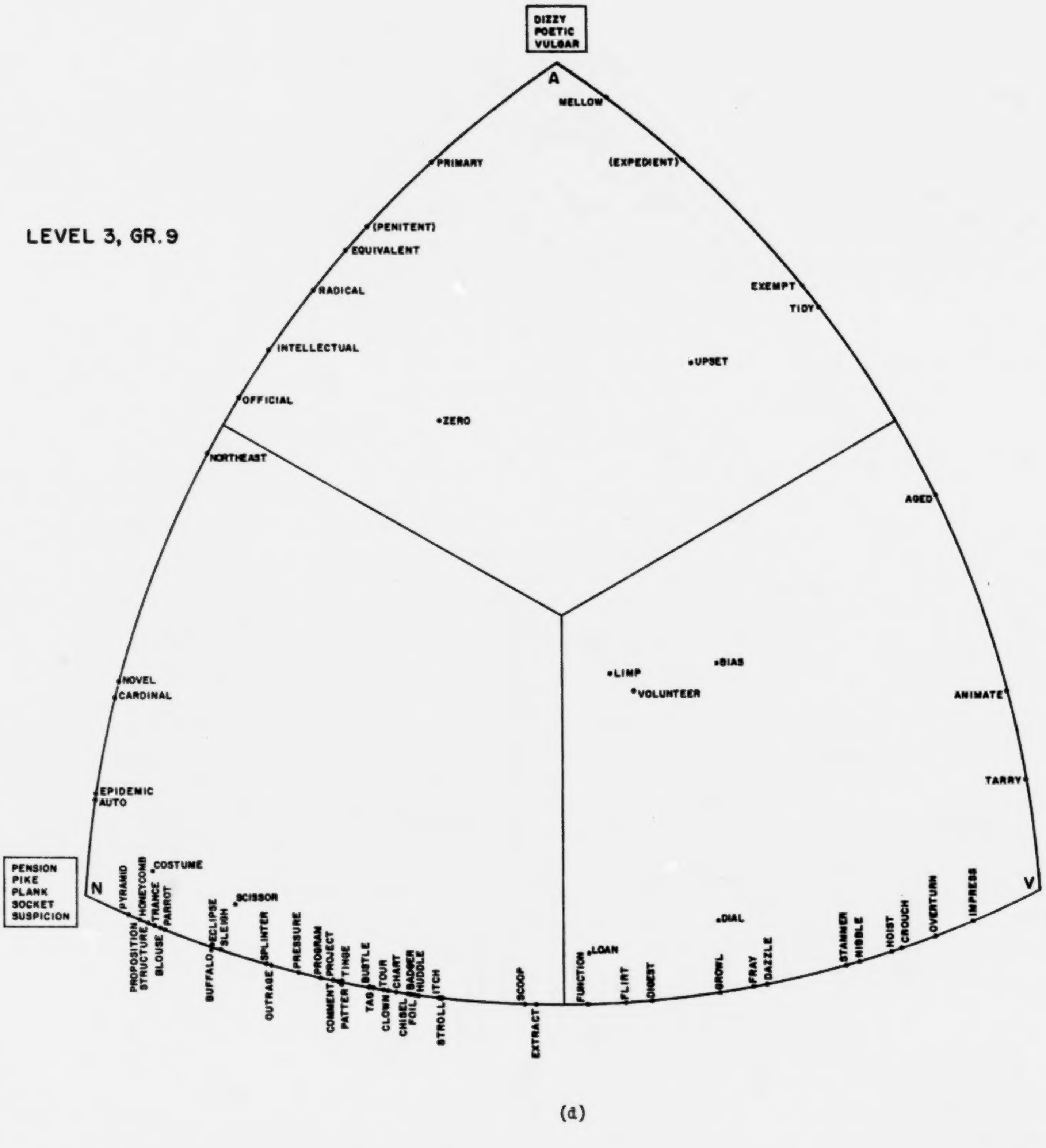
(b)

Figure 4.2 (cont.)



(c)

Figure 4.2 (cont.)



(d)

at both grades 6 and 9, 44 out of 64 of the differences between the two proportions are smaller at grade 9 than at grade 6; $p < .001$. That is, the words tend to approach an even split (.5 - .5) more at grade 9 than at grade 6.

One of the major purposes of this pilot experiment was to identify "unusual" grammatical functions of words, i.e., the parts of speech in which words are seldom perceived. A purely statistical approach was taken at this point. It was decided that an "unusual" grammatical function would be one for which the true probability of occurrence was .2 or less. On the basis of sample data, of course, one could only estimate such a true probability within certain confidence levels. It was further decided, therefore, that for the purposes of the study, an "unusual" grammatical function would be one for which there was 95% confidence that the true probability was no greater than .2 . Wilks (1949, equation 10.18) gives the quadratic equation for the confidence limits of p for a confidence coefficient α :

$$p^2 (n^2 + nz_\alpha^2) - p (2nX + nz_\alpha^2) + X^2 = 0$$

where n = the size of the sample,

p = a confidence limit for the true probability,

z = the normal deviate corresponding to the confidence coefficient,

X = the number of "successes."

In the present case we wish to establish that an observed proportion, p_o, is such that it is equal to or less than that proportion, $\bar{p}$, that yields an upper confidence limit, p, equal to .2 . Since $\bar{p} = X/n$, we may substitute $n\bar{p} = X$ in the above equation, and solve for $\bar{p}$ as a function of n and p. This gives:

$$A\bar{p}^2 + B\bar{p} + C = 0,$$

where $A = n^2$

$B = -n^2 p^2$

$C = p^2 (n^2 + nz_{\alpha}^2) - npz_{\alpha}^2$.

Solving for $\bar{p}$, we have:

$$\bar{p} = (-B - \sqrt{B^2 - 4AC}\,) / 2A.$$

Since we are concerned only with one tail of the distribution, the confidence coefficient $\alpha = .95$ corresponds to $z_{\alpha} = 1.64$. To see whether an observed proportion has an upper 95% confidence limit no greater than .2, we need only determine whether p_o is equal to or less than the value of $\bar{p}$ yielded by the above equation.

The asterisks given immediately to the left of proportions in Table 4.3 indicate that the proportion yields an upper confidence limit no greater than .2 at the 95% confidence level. Since the formula takes the base _n_ into account, asterisks do not in general occur for small base n's. Of course, in many instances asterisks occur for proportions equal to zero, but these may often be discounted because the grammatical function in question would not, in fact, ever occur. For example, the empirical proportion for BALANCE as an adjective (Level 1, grade 3) was .000, and in fact we would not expect BALANCE to occur as an adjective. An "unusual" grammatical function would be one that occurs with greater than zero frequency but with an upper confidence limit as specified above. For example, according to our data, BROKE (Level 1, grade 3) was used as an adjective with a proportion of only .111, and according to the criterion specified, this is "unusual"; therefore it receives an asterisk in Table 4.3.

These results concerning "unusual" grammatical functions of words were employed in selecting words for the main experiment, to be described in Chapter V.

Comparison of MGF vectors with the empirical "first sentence" data

To determine whether the MGF vectors estimated by methods described in Chapter II were good estimates of the empirical proportions with which the words were used in the first sentences written for each word, the highest MGF vector component for each word was compared with the corresponding empirical proportion. This analysis, of course, was carried out only for MGF words; thus, the "highest" MGF vector component was at most 9 . However, when a value of 9 for one part of speech was accompanied by a value of "-1" in the MGF vector for another part of speech (denoting a proportion vanishingly close to zero), it was considered separately, as if it were 9+ . In case of tied elements of 5 and 5, the corresponding empirical proportion was always that which corresponded to the first occurrence of 5 in the order N - V - A. For example, for an MGF vector (0 5 5) the corresponding empirical proportion was that for the verb. Table 4.5 shows the mean and S. D. of the empirical proportions for each value of the highest MGF vector component, for the data at each combination of level and grade. To assure a reasonable degree of reliability in the empirical proportions, only data for words validly responded to by at least 20 Ss were included. An analysis of variance was applied to determine the significance of the relationship. As may be seen, the relationship was highly significant at each level and grade. Also, the mean proportions roughly correspond to the MGF values. If the prediction had been ideal, the mean empirical proportion corresponding, say, to an MGF value of 6 would be .600, with no variance. The prediction was, of course, far from this ideal case. Inspection of Table 4.3 will reveal

Table 4.5

Means and Standard Deviations of Empirical NVA Proportions (1st Sentence) Corresponding to Each Value of the Highest MGF Vector Component, for Each Combination of Level and Grade, with Analysis of Variance Results

Highest MGF Vector Component	Level 1 Grade 3			Level 2 Grade 6			Level 2 Grade 9			Level 3 Grade 9		
	n	$\overline{X}$	σ	n	$\overline{X}$	σ	n	$\overline{X}$	σ	n	$\overline{X}$	σ
4,5	4	.564	.223	9	.441	.378	9	.488	.321	4	.454	.126
6	5	.466	.191	8	.469	.316	8	.424	.179	10	.576	.228
7	11	.856	.073	14	.691	.233	14	.719	.173	10	.709	.230
8	14	.772	.314	12	.783	.219	12	.757	.223	11	.818	.163
9	22	.910	.168	24	.841	.219	23	.809	.176	26	.793	.247
9+	7	.973	.034	13	.863	.278	14	.893	.249	16	.851	.245
Total	63	.820	.243	80	.728	.305	80	.725	.264	77	.752	.252
F		5.934			4.975			7.043			3.345	
$d.f._1$		5			5			5			5	
$d.f._2$		57			74			74			71	
p		$<.001$			$<.001$			$<.001$			$<.01$	
η		.585			.502			.568			.437	

many cases where the empirical "first sentence" proportions are quite different from those that would be estimated from the MGF vectors.

Among words expected to be most frequently used as nouns, the following were more often used as verbs: COPY, GLANCE, TRADE, ARREST, RESERVE, SHIFT, BIAS, DIAL, FRAY, LOAN, and VOLUNTEER. More often used as adjectives were STANDARD, CHOCOLATE, INDIVIDUAL, EXPEDIENT, and ZERO.

Among words expected to be most frequently used as verbs, the following were more often used as nouns: INCENSE, LINK, STAIN, CHISEL, FOIL, HUDDLE, SCOOP, and STROLL. More often used as adjectives were SECURE, MATURE, and SPARE.

Among words expected to be most frequently used as adjectives, the following were more often used as nouns: GENERAL, SAVAGE, TOTAL, ELDER, MORAL, and NORTHEAST. More often used as verbs were SEPARATE, GRADUATE, and LIMP.

As was pointed out in Chapter II, the MGF vectors were estimated on the basis of very meager frequency data. Furthermore, these frequency data, limited as they are, were mainly derived from adult literature. Nevertheless, the MGF vectors may very well be valid as estimates of frequency in adult literature. They should not necessarily be expected to agree with the normative data collected here on children's grammatical perceptions, which we may assume are a function of the frequencies with which the various parts of speech occur in children's experience, either in spoken or written language, or both. We have no satisfactory way of estimating such frequencies directly. Possibly the present normative data can be considered indirect estimates of the frequencies, if one accepts the "spew hypothesis" advanced by Underwood and Schulz (1960, p. 86) to the effect that "the order of availability of verbal units is directly related to the frequency with which the units have been experienced." In any case, the present normative data are believed to be useful as direct indications of children's grammatical perceptions of words presented in isolation.

It should be noted that the relations between the MGF vectors and the empirical proportions are approximately of the same magnitude at each level and grade. Thus, there is in general no evidence that the results obtained at the higher grades approach those predicted by the MGF vectors more closely than at the lower grades. Through the comparison of proportions for Level 2 words at grades 6 and 9, one can find a few isolated cases in which the grade 9 proportions seem to approximate the MGF vector predictions more closely than the grade 6 proportions do. For example, at grade 6 only 38.5% used INDIVIDUAL (MGF vector 7 0 3) as a noun, whereas at grade 9 the percentage was .677 . Similarly, MORAL (MGF vector 1 0 9) was used as an adjective at grade 6 by only 13.0% but at grade 9 by 33.3% . For these words, the results suggest that older children are more likely to use them in "adult" grammatical functions.

Reliability of the empirical MGF proportions

The reliability of the empirical MGF proportions presented in Table 4.3 is to some extent a function of the numbers of cases on which they are based. For some words, especially at the lower grades, the N's on which the proportions are based are relatively small due to the fact that large numbers of respondents failed to give valid responses to these words. The reliability of the data is also a function of the unknown extent to which the samples are representative of the populations (grades 3, 6, and 9 school-children in the U. S.) which they were supposed to represent.

The available data permit the use of two methods of further assessing their reliability: (1) comparisons of data from different grades, and (2) comparison with data obtained on certain words in the pilot study.

Comparison of data between grades is possible only for words in the Level 2 forms. For each of these 81 words, the highest proportion in the empirical MGF vector at grade 6 was compared with the corresponding proportion at grade 9 by means of a chi-squared test with 1 d. f. One would expect, by chance, about 4 of these comparisons to be significant at the 5% level; actually, 23 of them were. Also, by chance only about one comparison would be significant at the 1% level; actually, 15 of them were. For present purposes, it is probably wise to use the 1% significance level as a criterion for selecting words with probable true differences. On this basis, 64 of the 81 comparisons may be regarded as not significant; this result seems to testify to the general stability of the data across grades. The 15 words for which differences were significant at the 1% level are as follows: APPEAL, ATTIRE, CHANNEL, DIP, DOCK, DRUG, ESTIMATE, GRADUATE, HUM, INDIVIDUAL, KNOT, STAIN, SWAMP, UNIFORM, and WAX. The relevant data may be found in Table 4.3. In general, the differences are in the direction of less concentration on a given part of speech in grade 9 than in grade 6.

A similar series of tests of significance was then carried out for the 36 words that were common to the pilot study and the present normative study. For the 9 words at Level 1 (Level I of the pilot study), comparisons were made both at grade 3 and at grade 6 (using data that are not presented in Table 4.3 because of small N's). Only one of these words, INSTANT, showed a difference significant at the 1% level; the empirical MGF proportions were (.478, .0, .522; N=67) for the pilot experiment and (.857, .0, .143; N=14) for the normative study data. For the 9 words at Level 2 (Level II of the pilot study), comparisons were possible for both grades 6 and 9. Four words, DIP, INDIVIDUAL, SCREEN, and WAX, showed significant differences at grade 6, and SCREEN and WAX also showed significant differences at grade 9. (The relevant data may be found in Tables 3.5 and 4.3.) It is possible, however, that these differences may be partly due to changes in coding practices between the two studies, particularly in the case of SCREEN, which, when used as an attributive adjective as in screen door, may have been more often coded as a noun in the normative study than in the pilot study.

For the 18 words at Level 3 (Levels III and IV in the pilot study), comparisons were possible only for grade 9. Of these words, only 3 showed significant differences: ANIMATE, CARDINAL, and RADICAL. Again, the relevant proportions may be found in Tables 3.5 and 4.3 .

To conclude: while small numbers of words showed significant differences either between grades or between studies, the majority of words yielded MGF proportions that are reasonably stable between grades and between studies.

Incidence of second sentences and of changes of grammatical function in the second sentences written for each word

The last three columns of Table 4.3 give three proportions for each word:

P(2): Probability of writing a second sentence, whether "valid" or not. The base of this proportion is BASE N.

P(VAL. 2ND R): Probability of writing a valid second sentence, i.e., with a legitimate part of speech for the word. Again, the base of this proportion is BASE N.

P(GRAM. CHANGE): The probability that, if a valid second sentence was written, it contained the word in a part of speech other than that in which it was used in the first sentence written. The base for this proportion is the number of valid second responses [=(BASE N)* (P(VAL. 2ND R))].

These values permit one to study the degree to which there was a tendency to write a second sentence for a word and to use the word in a different part of speech in such a sentence. It will be recalled that the instructions for this test asked the respondents to write "the first sentence that you think of" and then "another sentence using the word in a different way." It was hoped that these instructions would often dispose the respondent to use the word in a different part of speech. Of course, many words were semantically ambiguous and could be used "in a different way" even without a change in grammatical function. In any case, it was believed that the extent to which "second sentences" were written with a change of grammatical function would indicate the extent to which the respondents were familiar with the multiple grammatical functions of the words.

Close examination of all the data suggested that it would be useful to derive a new variable, labelled T(PMA), namely, an arc sine transformation of the largest value in the empirical MGF vector for the first sentence written. This derivation suggested itself because it was noted that the words exhibiting the largest amount of grammatical change in the second sentence written tended to be words with relatively "balanced" empirical MGF vectors. That is, these were the words in which the proportions with which two grammatical functions were used approached .5 (or .333, for the case of NVA words with three grammatical functions). Conversely, words which tended to be used in a single grammatical function in the first sentence written, over the sample of responses, tended to be words for which the probability of grammatical change in the second sentence was low. The magnitude of the largest element in the empirical MGF vector for the first sentence written was taken as an inverse index of the "balance" of the vector. For example, at Level 2, grade 6, the word SPARE has a relatively "balanced" MGF vector (.068, .361, .571) for the first sentence written and it was used in a different part of speech in 64.1% of the valid second sentences written, whereas the word CHANNEL had an "unbalanced" empirical MGF vector (1.000, .0, .0) and was never used in a different part of speech in a second valid sentence, even though 82.4% of the respondents wrote "valid" second sentences. The largest element of the empirical MGF vector was given the designation PMA (e.g., .571 for SPARE and 1.000 for CHANNEL). The arc sine transformation (2 arc sine $\sqrt{\text{PMA}}$) was used because scatterplots of the joint distribution of PMA and P(GRAM. CHANGE) suggested that such a transformation would much improve the linearity of the relationship.

Table 4.6 shows the correlations, over words with BASE N equal to 20 or greater, of the variables P(TOT), T(PMA), P(VALID 2ND R), and P(GRAM. CHANGE). It also shows the means and standard deviations of these variables as they distribute over the words, and the beta weights (β) and shrunken multiple correlations ($\bar{R}$) in the prediction of P(GRAM. CHANGE) from the other three variables.

First let it be observed that these four variables are experimentally independent in the sense that there are no constraints against their having zero correlations. The three proportions are based on different N's, and T(PMA) can vary independently of any of these N's.

It may then be noted, from Table 4.6, that:

(a) There is a marked rise ($F_{2,\ 217} = 28.92$, $p < .001$) in mean P(TOT) over levels (and grades), particularly from Level 1 to Level 2. (The data for Level 2, grade 9 were excluded from this analysis because they are correlated with those from Level 2, grade 6. The nature of the data automatically results in a confounding of level and grade.) This result, of course, applies to the first sentence written and merely underlines the conclusion derived from Table 4.2, with the minor difference that the results here were derived only from words for which BASE N is 20 or greater.

(b) There is a slight decline ($F_{2,\ 217} = 3.47$, $p < .05$) in mean T(PMA). That is, the "balance" of the empirical vectors tends to increase with level (and presumably also with grade). (A t-test for correlated means for Level 2, grade 6 vs. 9 shows the difference to be significant, $p < .001$.)

Table 4.6

Correlational Analysis of Four Variables Pertaining to Use of Different Grammatical Functions in First and Second Sentences Written for a Word*

	Level and Grade	P(TOT)	T(PMA)	P(VALID 2ND R)	P(GRAM. CHANGE)		β
P(TOT)	1 - 3	1.000	.049	.730	-.081		-.225
	2 - 6	1.000	-.017	.786	.184		.069
	2 - 9	1.000	-.367	.506	.300		-.084
	3 - 9	1.000	-.138	.754	.275		.125
T(PMA)	1 - 3	.049	1.000	.004	-.718		-.708***
	2 - 6	-.017	1.000	-.311	-.861		-.820***
	2 - 9	-.367	1.000	-.614	-.887		-.814***
	3 - 9	-.138	1.000	-.400	-.872		-.836***
P(VALID 2ND R)	1 - 3	.730	.004	1.000	.078		.245
	2 - 6	.786	-.311	1.000	.438		.128
	2 - 9	.506	-.614	1.000	.625		.168*
	3 - 9	.754	-.400	1.000	.474		.045
Means	1 - 3	.470	2.560	.615	.164	n	63
	2 - 6	.670	2.449	.656	.280		80
	2 - 9	.680	2.316	.654	.448		80
	3 - 9	.716	2.350	.628	.415		77
S.D.'s	1 - 3	.195	.448	.121	.151	$\bar{R}$	.734
	2 - 6	.214	.468	.151	.205		.879
	2 - 9	.154	.477	.172	.253		.894
	3 - 9	.184	.478	.174	.248		.884

*Symbols:

P(TOT):	Proportion of valid first sentence responses, based on total N, where N is the number of respondents.
T(PMA):	Arc sine transformation of the largest element in the empirical MGF vector, and inverse index of the "balance" of the vector, or its distribution over parts of speech.
P(VALID 2ND R):	Probability of a valid 2nd sentence, based on (BASE N) = N * P(TOT).
P(GRAM. CHANGE):	Probability of a grammatical change in word function in the 2nd sentence written, based on (BASE N) * P(VALID 2ND R).
β:	Beta weight of variable in prediction of P(GRAM. CHANGE) from the other three variables.
n:	Number of words on which calculations are based.
$\bar{R}$:	"Shrunken" multiple correlation for prediction of P(GRAM. CHANGE) from the three other variables.

In the body of the table, *** means $p \leq .001$; * means $p \leq .05$.

(c) Mean P(VALID 2ND R) is quite stable over levels ($F_{2, 217} = 1.37$ n.s.), the overall mean being .634 with nonsignificant variation over levels. (The grade 6 vs. grade 9 difference is nonsignificant.)

(d) There is a marked rise in P(GRAM. CHANGE) over levels ($F_{2, 217} = 25.12$, $p < .001$). Presumably this also applies over grades; the Level 2, grade 6 vs. 9 difference is highly significant, $p < .001$. It is reasonable to infer that the tendency to change grammatical function in a second sentence increases over grades.

(e) From the correlational analysis, it appears that the difficulty of a word, as indexed by P(TOT), is not significantly related to its tendency to elicit a changed grammatical function in the second-sentence data.

(f) A large proportion of the variance of P(GRAM. CHANGE) is associated with T(PMA), with highly significant correlations and beta weights. That is, for words at a given level and grade, as the "balance" of the MGF vector increases, there is an associated tendency for the respondents to use the word in a different part of speech in the second sentence written. Such a result might have been expected, for as the "balance" of the first sentence MGF vector increases, i.e., as the probabilities for the different parts of speech in the first sentence become more equal, the respondents are more likely to be familiar with different grammatical functions of the words and hence to change grammatical functions when they write a second sentence illustrating a "different" use of the word.

(g) The tendency to write a valid second sentence is positively correlated with the tendency to change a word's grammatical function in so doing, particularly at the higher grades, but this tendency makes a significant ($p < .05$) independent contribution to the prediction of P(GRAM. CHANGE) over and above the prediction from T(PMA) only for one set of data--that for Level 2, grade 9.

From the results discussed thus far, we may conclude that the tendency to change grammatical function is chiefly associated with whether the word is known in different parts of speech by the group. There is, however, another factor to be considered--the polysemy (multiple meaning) of a word. The variation in P(GRAM. CHANGE) was thought to be possibly associated with the semantic coding (SM) of the word as explained in Chapter II. It will be recalled that a code of 1 was assigned to an MGF word when it contained one and only one basic meaning (e.g., the meaning of FILL as a noun and as a verb) throughout the two or three grammatical functions in which it might be used. Codes 2, 3, or 4 were assigned when polysemy was associated, in one of several possible ways, with changes in grammatical function. It might be reasoned that respondents would be more likely to use a word in a different grammatical function in their second sentences when the semantic code was 2, 3, or 4 than when it was 1, because they might regard a "different way" of using the word as one having to do with a different sense of the word. To investigate this possibility, the mean values of P(GRAM. CHANGE) were determined for each value of the semantic classification and analyses of variance were done to study the significance of variation in these means. The results are shown in Table 4.7. Because there were relatively few words in semantic code classifications 2 and 4, for the analyses of variance the data for these words were pooled with those for words with code 3. Further, the analyses were restricted to words for which BASE N (number of valid first sentences) was 20 or greater, in order to insure reasonable reliability in the basic data. The differences between words in semantic code 1 and words in semantic codes 2, 3, and 4 combined are all in the expected direction, but they are highly significant only at Level 2, grade 6, tapering off to non-significance at Level 3, grade 9. These results suggest that polysemy is a significant factor in the use of grammatical change in second-sentence writing

Table 4.7

Analysis of P(GRAM. CHANGE) by Semantic Code

Semantic Code	Level 1 Grade 3		Level 2 Grade 6		Level 2 Grade 9		Level 3 Grade 9	
	n	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$
1	42	.139	58	.243	58	.406	60	.408
2	1	.103	2	.495	2	.659	1	.500
3	11	.193	17	.365	17	.520	11	.420
4	9	.252	3	.388	3	.721	5	.471
2, 3, 4 Combined	21	.214	22	.380	22	.560	17	.440
Total	63	.164	80	.280	80	.448	77	.415
F	3.545		7.707		6.291		0.247	
$d.f._1$	1		1		1		1	
$d.f._2$	61		78		78		75	
p	$<.10$		$<.01$		$<.025$		n.s.	

(as defined in this experiment) only at grade 6. A possible interpretation of these results is that at grade 3 respondents are seldom aware of alternative senses of words, but that at grade 6 they become more aware of them. By grade 9, students are often aware not only of polysemy but also of polysyntagmy (multiple grammatical function) even when polysemy is minimal. Polysemy is, however, an influential factor for grade 9 students only for the less difficult words, i.e., those in the Level 2 forms.

This interpretation is supported by similar analyses of P(TOT), T(PMA), and P(VALID 2ND R), shown in Table 4.8. Only at Level 2, grade 9 are polysemic words successfully used in the first sentence written significantly more often than nonpolysemic words. At Level 2, for both grade 6 and grade 9, polysemic words are significantly more often used in valid second sentences than the nonpolysemic words, but the differences are not significant for words in Level 3 forms.

Table 4.8

Means of Three Variables by Semantic Code Classifications with Analysis of Variance Significance Tests

	Semantic Codes	P(TOT)	T(PMA)	P(VALID 2ND RESPONSE)
Level 1, Gr. 3	1	.492	2.635	.627
	2,3,4	.428	2.412	.592
	$F_{1,61}$	1.47	3.55	1.13
	p	n.s.	n.s.	n.s.
Level 2, Gr. 6	1	.647	2.508	.630
	2,3,4	.734	2.294	.726
	$F_{1,78}$	2.68	3.34	6.87
	p	n.s.	n.s.	$<.025$
Level 2, Gr. 9	1	.650	2.383	.608
	2,3,4	.759	2.140	.777
	$F_{1,78}$	8.71	4.16	18.55
	p	$<.01$	$<.05$	$<.001$
Level 3, Gr. 9	1	.731	2.380	.625
	2,3,4	.660	2.251	.640
	$F_{1,75}$	2.03	< 1	< 1
	p	n.s.	n.s.	n.s.

Chapter V

Children's Comprehension of MGF Words

Introduction

With the compilation of the data on children's grammatical responses to MGF words reported in Chapter IV, it became possible to undertake the study which had been the principal goal of this project, namely, a study to compare children's comprehension of words used in their "usual" or "most potent" grammatical functions with their comprehension of these same words when used in "unusual" or "less potent" grammatical functions. It was believed that, at least at the lower grades, children would comprehend MGF words less well in their less common grammatical functions than in their more common grammatical functions.

This chapter describes the design and outcomes of the large-scale study that was performed to obtain data bearing on this question.

Selection of words to be included in the test instruments

Since this study had the objective of seeing how well children comprehend unusual grammatical uses of words, it was necessary to select a list of words for which at least one grammatical usage had a low probability in the normative data collected in the earlier phases of this study. As described in Chapter IV, statistical procedures were applied to identify grammatical functions of words such that the true probabilities of those grammatical functions, as reflected in the first sentence written in response to a word, would be less than .2 at the 95% confidence level. These functions are identified by asterisks in Table 4 3; however, the asterisks printed next to zero or near zero probabilities for "illegitimate" grammatical uses of the words are to be discounted.

The overall design of the study and practical considerations in the construction of the instruments to be used for testing comprehension permitted the use of only a relatively small sample of MGF words--to be exact, 21 words at each of three levels of difficulty in terms of Thorndike rank-frequency indices.

If words had been selected solely on the criterion that the normative data showed estimated true probabilities of "unusual" grammatical functions to be less than .2, it would have been possible to select a total of 132 words (55%) of the 240 MGF words in the normative data: 46 (57%) of the 81 words at Level 1, 49 (60%) of the 81 words at Level 2, and 37 (47%) of the 78 words at Level 3. These results are based on the use of grade 3 normative data for Level 1 words, grade 6 normative data for Level 2 words, and grade 9 normative data for Level 3 words. (Generally, the normative data from grade 6 for Level 1 words, though meager, and the voluminous data from grade 9 for Level 2 words confirm these results.)

Various other considerations were used in the final selection of 21 words at each level. Some of the "unusual" grammatical usages that were identified by the statistical criterion were extremely rare or archaic (e.g., ACKNOWLEDGE as a noun) and it was judged that children would not be expected to know these usages. On the other hand, some usages, though unusual in the grammatical perceptions of the children, were judged to be so common in actual frequency that they would be well within children's comprehension, e.g., JUMP as a noun. Some examples of such "unusual" but "common" usages were included in the selected words, however, e.g., END, FREE, and NAME as verbs. One other consideration in the selection of words was that the final sample should include examples of words in various "semantic codes" (as described in Chapter II), i.e., both words in semantic code "1" where the same one basic meaning was present in two or more grammatical functions, and words in semantic codes "2," "3," and "4" exhibiting various types of polysemy across grammatical functions.

The 63 words finally selected for the study are shown in Table 5.1 along with various other information concerning them.

As a matter of record, we list the words that might have been selected but were not, for various reasons. In the following lists, the "unusual" grammatical functions are indicated; the corresponding proportions from the normative data may be found in Table 4.3:

Level 1: BABY (v.), DECK (v.), DIVIDE (n.), FEVER (v.), BETTER (v.), HIRE (n.), JUMP (n.), KICK (n.), LEFT (n.), MAP (v.), MINUTE (adj.), NATIONAL (n.), NINE (n.), NOISE (v.), PICK (n.), PUBLIC (n.), ROYAL (n.), RUN (n.), SEPARATE (adj.), SLOPE (v.), STAR (v.), STIR (n.), TOTAL (v.), TRADE (n.), WARM (v.).

Level 2: ACKNOWLEDGE (n.), AFFECT (n.), ASSOCIATE (adj.), CAREER (v.), CELL (v.), CHAPTER (v.), DRUNK (n.), FIST (v.), GIRDLE (v.), GRADUATE (adj.), HUT (v.), JAW (v.), JOB (v.), LAST (v.), MAJOR (v.), MIST (v.), MOTIVE (adj.), OFFICER (v.), PARTNER (v.), RESERVE (n., adj.), RICE (v.), ROVE (n.), SCREEN (v., adj.), SNATCH (n.), SPIT (n.), TENTH (n.), UNIFORM (adj.).

Level 3: CARDINAL (adj.), COSTUME (v.), CROUCH (n.), DIZZY (v.), EXPEDIENT (n.), HONEYCOMB (v.), PIKE (v.), PROPOSITION (v.), PYRAMID (v.), SCISSOR (v.), SOCKET (v.), SUSPICION (v.), TRANCE (v.), UPSET (n.), VULGAR (n.), ZERO (v.).

Construction and design of instruments for testing comprehension of MGF words

In the original project plan, four types of instruments for testing children's comprehension of MGF words were proposed:

(1) Multiple-choice vocabulary tests. Children would be presented with words in context, some exhibiting frequent grammatical functions, others exhibiting infrequent grammatical functions, and asked to identify the

TABLE 5.1

WORDS USED IN TEST FORMS

LEVEL 1

									SENTENCE EVALUATION				HEADLINES		
WD#	WORD	S	D	TH	GC	SMCO	N	V	A	ITEM#	FM.A	FM.B	FM.C	ITEM#	FM.A	FM.B
36	AGE	3	1	1B	4	1	9	1	0	2	H-N	A-*	L-V	17	H-N	L-V
167	BROKE	2	2	2B	6	1	0	9	1	9	H-V	A-*	L-A	6	L-A	H-V
205	CHANCE	3	1	1B	7	1	8	1	1	7	L-V	H-N	A-*	1	H-N	L-V
359	END	3	1	1A	4	1	8	2	0	14	H-N	A-*	L-V	10	L-V	H-N
405	FILL	3	1	1A	4	1	-1	9	0	3	A-*	H-V	L-N	18	H-V	L-N
437	FREE	2	1	1A	6	1	0	1	9	6	H-A	L-V	A-*	21	H-A	L-V
445	GAME	2	1	1B	5	3	9	0	1	4	L-A	H-N	A-*	19	L-A	H-N
468	GRAVE	2	1	2A	5	4	8	0	2	13	L-A	A-*	H-N	5	H-N	L-A
623	LINE	2	1	1A	4	3	9	1	0	8	A-*	L-V	H-N	11	H-N	L-V
615	LIVE	1	1	1A	6	1	0	9	1	11	A-*	H-V	L-A	3	H-V	L-A
689	MILL	1	1	1B	4	1	9	1	0	17	A-*	L-V	H-N	7	L-V	H-N
723	NAME	3	1	1A	4	1	8	2	0	19	L-V	H-N	A-*	9	L-V	H-N
783	PAGE	1	1	1B	4	2	9	-1	0	18	H-N	L-V	A-*	8	H-N	L-V
876	PRIVATE	2	3	2A	5	4	1	0	9	10	A-*	H-A	L-N	2	L-N	H-A
975	SEASON	1	1	1B	4	3	9	1	0	12	H-N	L-V	A-*	4	L-V	H-N
1015	SIGHT	1	1	1A	4	1	9	1	0	20	L-V	A-*	H-N	15	H-N	L-V
1023	SKIRT	1	1	2A	4	4	7	3	0	15	L-V	A-*	H-N	12	H-N	L-V
1084	STRANGER	1	1	2B	5	1	9	0	-1	5	A-*	L-A	H-N	20	L-A	H-N
1116	TAKE	1	1	1A	4	1	-1	9	0	1	L-N	H-V	A-*	16	L-N	H-V
1153	TRAIN	2	1	1A	4	4	7	3	0	16	A-*	L-V	H-N	14	L-V	H-N
1235	WISH	3	1	1A	4	1	2	8	0	21	H-V	A-*	L-N	13	H-V	L-N

Key: (See Chapter II for Details)

S: Sample
D: Dale Rating
TH: Thorndike Rank-Frequency Index
GC: Grammatical Code
SMCO: Semantic Code
N, V, A: MGF Vector

Designations under Sentence Evaluation and Headlines are H, L, A (High, Low, Anomalous), N, V, A, * (Noun, Verb, Adjective, Anomalous). Thus, H-N signifies that the word is in "high frequency" usage as a Noun; A-* signifies that the word is used anomalously.

TABLE 5.1 (CONTINUED)

WORDS USED IN TEST FORMS

LEVEL 2

									SENTENCE EVALUATION				HEADLINES		
WD#	WORD	S	D	TH	GC	SMCO	N	V	A	ITEM#	FM.A	FM.B	FM.C	ITEM#	FM.A	FM.B
67	APPEAL	2	3	3A	4	1	5	5	0	5	L-N	A-*	H-N	18	H-V	L-N
162	BOTHER	2	1	4A	4	1	1	9	0	13	H-V	L-N	A-*	5	H-V	L-N
175	BUBBLE	1	1	3A	4	1	7	3	0	16	L-V	A-*	H-N	21	L-V	H-N
182	BUY	2	1	3A	4	1	1	9	0	20	H-V	L-N	A-*	12	H-V	L-N
207	CHANNEL	1	3	3B	4	1	9	1	0	2	L-V	H-N	A-*	15	H-N	L-V
340	DRUG	2	1	3B	4	1	9	1	0	18	A-*	H-N	L-V	10	L-V	H-N
491	HEDGE	1	3	3A	4	2	9	1	0	12	H-N	A-*	L-V	4	L-V	H-N
511	HUM	1	1	3B	4	1	4	6	0	6	A-*	L-N	H-V	19	L-N	H-V
534	INCENSE	1	4	4A	4	3	5	5	0	1	H-N	L-V	A-*	14	H-N	L-V
577	KNOT	1	1	3B	4	3	7	3	0	3	A-*	H-N	L-V	16	L-V	H-N
713	MOTOR	1	1	4A	4	1	8	2	0	17	H-N	A-*	L-V	9	H-N	L-V
827	PLANE	2	1	4B	4	3	9	1	0	9	L-V	H-N	A-*	8	H-N	L-V
844	POLL	1	4	4B	4	1	8	2	0	14	A-*	H-N	L-V	6	H-N	L-V
839	POLICE	2	1	4A	4	1	9	1	0	19	A-*	L-V	H-N	11	L-V	H-N
967	SCARE	2	1	3A	4	1	1	9	0	7	L-N	A-*	H-V	1	L-N	H-V
1033	SNAKE	2	1	3B	4	1	9	-1	0	11	A-*	L-V	H-N	3	H-N	L-V
1053	SPEAR	2	1	3A	4	1	8	2	0	15	L-V	H-N	A-*	20	H-N	L-V
1111	SWAMP	1	1	4A	4	3	9	1	0	8	L-V	A-*	H-N	7	L-V	H-N
1171	TWINE	1	3	4A	4	1	4	6	0	4	L-V	A-*	H-N	17	L-V	H-N
1244	WORRY	2	1	3B	4	1	2	8	0	10	H-V	L-N	A-*	2	L-N	H-V
1250	YELL	1	1	4A	4	1	2	8	0	21	A-*	H-V	L-N	13	L-N	H-V

TABLE 5.1 (CONTINUED)

WORDS USED IN TEST FORMS

LEVEL 3

										SENTENCE EVALUATION				HEADLINES		
WD#	WORD	S	D	TH	GC	SMCO	N	V	A	ITEM#	FM.A	FM.B	FM.C	ITEM#	FM.A	FM.B
60	ANIMATE	1	6	6	6	1	0	9	1	4	A-*	L-A	H-V	11	H-V	L-A
151	BLOUSE	1	2	7	4	1	9	-1	0	15	H-N	A-*	L-V	21	L-V	H-N
176	BUFFALO	2	1	6	4	1	9	-1	0	14	H-N	L-V	A-*	16	H-N	L-V
347	ECLIPSE	1	3	6	4	1	8	2	0	2	H-N	A-*	L-V	9	H-N	L-V
367	EPIDEMIC	1	4	8	5	1	8	0	2	6	L-A	H-N	A-*	17	H-N	L-A
502	HOIST	1	4	7	4	1	2	8	0	16	H-V	A-*	L-N	5	L-N	H-V
530	IMPRESS	2	3	5A	4	1	1	9	0	17	L-N	H-V	A-*	6	H-V	L-N
678	MELLOW	1	5	5A	6	1	0	1	9	12	A-*	L-V	H-A	14	L-V	H-A
735	NIBBLE	1	1	6	4	1	3	7	0	20	L-N	A-*	H-V	19	H-V	L-N
746	NOVEL	1	3	5A	5	4	8	0	2	7	H-N	A-*	L-A	1	L-A	H-N
775	OUTRAGE	1	5	6	4	1	7	3	0	19	H-N	A-*	L-V	18	L-V	H-N
777	OVERTURN	1	1	5A	4	1	1	9	0	9	A-*	L-N	H-V	3	H-V	L-N
791	PARROT	1	2	5B	4	1	9	-1	0	11	H-N	L-V	A-*	13	H-N	L-V
807	PENSION	1	7	6	4	1	9	1	0	8	A-*	H-N	L-V	2	H-N	L-V
828	PLANK	1	2	5A	4	3	9	1	0	1	A-*	L-V	H-N	8	L-V	H-N
867	PRESSURE	2	3	5A	4	1	9	1	0	18	L-V	A-*	H-N	7	L-V	H-N
873	PRIMARY	2	5	5B	5	3	1	0	9	21	A-*	L-N	H-A	20	H-A	L-N
1027	SLEIGH	1	1	5A	4	1	8	2	0	3	L-V	H-N	A-*	10	H-N	L-V
1059	SPLINTER	1	3	7	4	1	7	3	0	10	L-V	H-N	A-*	4	L-V	H-N
1090	STRUCTURE	3	4	7	4	1	9	-1	0	13	A-*	H-N	L-V	15	H-N	L-V
1118	TARRY	1	4	5A	6	4	0	9	1	5	L-A	H-V	A-*	12	L-A	H-V

meanings by matching them with synonyms or words that are closely related semantically.

(2) "Headline" tests. In order to restrict grammatical cues somewhat, imaginary newspaper headlines would be presented and the pupils would be asked to expand or paraphrase these. Alternate forms of the test would present words in frequent and in infrequent grammatical functions.

(3) Sentence evaluation tests. Alternate forms of this test would present (1) sentences containing frequent grammatical functions for a word, (2) sentences containing infrequent grammatical functions, and (3) sentences containing clearly unacceptable (syntactically anomalous) usages of the MGF words. The respondents would be asked to evaluate each sentence for "correctness" or acceptability.

(4) Verification tests. It was thought that at least some MGF words might lend themselves to the construction of instruments that would test comprehension by asking the respondent to match a sentence with one of four pictures, sentences such that if they contained a MGF-H usage they would refer to one of the pictures whereas if they contained a MGF-L usage they would refer to another of the pictures.

Attempts were made to construct suitable tests of all four types, but it was found that the two most practicable types of tests were (2) and (3), the "headlines" test and the sentence evaluation test.

Although it might have seemed easy to construct appropriate multiple-choice vocabulary tests, this proved to be untrue. The difficulty was that in the context of the present experiment it was usually impossible to avoid constructing alternative choices that did not "give away" the grammatical function of the key word.

After some investigation, the plan to construct "verification" tests was abandoned because few MGF words lent themselves to easy pictorial representation. In any case, the cost and difficulty of having suitable pictures drawn was thought to make this plan impracticable.

Sentence evaluation tests. It proved relatively easy to construct this type of test. The type of item may be illustrated by the items constructed for "frequent" (MGF-H), "infrequent" (MGF-L), and anomalous usages of the word AGE, selected at Level 1.

MGF-H: (Noun) He told me his age. RIGHT WRONG
MGF-L: (Verb) The trees age every year. RIGHT WRONG
(Anom.) The age paper was new. RIGHT WRONG

The respondent was asked to decide whether the underlined word is used correctly or not, and to put a circle around RIGHT or WRONG to indicate his decision.

At each level of difficulty, three alternate forms were constructed to test the 21 words chosen for that level. The MGF-H, MGF-L, and anomalous usages were randomly distributed among the three forms, with the constraint that each form would contain 7 MGF-H items, 7 MGF-L items, and 7 anomalous items.[1] A respondent correctly marking each item would mark 14 items as RIGHT and 7 items as WRONG. Nothing was indicated in the instructions as to how many items would be correctly marked as RIGHT or WRONG. The 7 anomalous items served as "filler" items to provide an opportunity for the respondent to find "WRONG" items. The test was designed so that it would be possible to compare the responses to MGF-H and MGF-L items when the different forms were administered to random divisions of the school classes to be tested.

The page of test items was preceded by a page of instructions which stated that "this is a test of how well you know the uses of certain words" and illustrated the manner of marking the responses for two sentences with "correct" usages and one sentence with an anomalous usage. The respondents were cautioned that the test "has nothing to do with whether the sentences are true or not," and were given three further practice items (again, two "right" and one "wrong").

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[1] Through a clerical error, a minor deviation from this rule occurred for the Level 2 forms. The "H" and "L" usages of TWINE were placed in Forms C and A, respectively, whereas they should have been put in Forms A and C, respectively.

Headlines test. For this test, it was necessary to construct imaginary "headlines" illustrating the MGF-H and MGF-L usages. The type of item may be illustrated, as before, for the word AGE:

MGF-H:

CHILD TELLS HIS AGE

____

____

MGF-L:

STUDY SHOWS PEOPLE AGE SLOWER

____

____

For each item, two lines were provided which the respondent could use to write a paraphrase that would "explain what the headline means" without using the underlined word.

Two alternate forms were constructed at each level, the MGF-H and MGF-L usages being assigned randomly to the two forms under the constraint that 10 or 11 of each type would occur in each form.[2] Formating considerations dictated that each form contained a total of 21 items, 7 items on each of three pages. The cover page contained instructions which stated that this was "a test of how well you understand newspaper headlines," and gave a number of examples of how the test was to be completed--4 examples completed and 2 for the respondent to try for himself.

All the items in both the sentence evaluation test and the headlines test, in their several versions for each word, are presented in Appendix D.

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[2] Through clerical error, Form A at Level 3 contained 12 H and 9 L, while Form B contained 9 H and 12 L, because the H and L usages of NIBBLE were misassigned.

It could be argued that the results of this study would be determined, to some extent, by the particular sentences constructed for the words and that in consequence the results could not readily be generalized to other sentences that might be written for the words. The only defense against this argument is that the major purpose was to generalize certain conclusions over samples of words rather than to study performance on particular words. Any confounding of results with the particularities of item construction would, it was hoped, be approximately randomized over the samples of words. It would have been impracticable, without greatly increasing the scale of the study, to construct alternate sets of sentences for the words in order to test the hypothesis of interaction between particular item contexts and the "treatment" effect represented by MGF-H, MGF-L, and anomalous usages. In any case, a partial remedy for this design problem was provided by the fact that each word was used both in a set of "sentence evaluation tests" and in a set of "headlines" tests, with the consequent possibility of comparing results across the two types of test.

Vocabulary test. Within the limited testing time available for this study, it was considered desirable to obtain a measure of general verbal ability for each child in order to have a basis for comparing groups and analyzing results of the sentence evaluation and headlines test. This had to be a brief test, and at the same time it needed to have such a range of difficulty that it would be equally appropriate for children in grades 3, 6, and 9. After a survey of the possibilities, it was decided to make an adaptation of the Wide Range Vocabulary Test, Form B, by C. R. Atwell and F. L. Wells, published and copyrighted by The Psychological Corporation. With the special permission of The Psychological Corporation, 25 items from that test were selected and put in the form of a brief power test. Since the items in the WRVT are (according to the Manual) arranged in order of difficulty, a selection was made of every odd-numbered item from items 1 to 49 in order to provide a suitable range of difficulty for the populations to be used in this study.[3] Since this test was not to be used for individual diagnosis or guidance of any kind, it was felt that even a test of 25 items would provide sufficient reliability of scores for the purposes of this research.

The tests were assembled in two 4-page booklets: one booklet, to be administered first, contained the sentence evaluation test (one page of instructions, one test page) and the 25-item vocabulary test (one page); the other booklet was exclusively devoted to the headlines test. The cover page for each booklet provided space for the student to write his name and age. (Sex was not included as a variable in this study.) Each of the booklets, of course, was printed in alternate forms for each level; there were in all 9 booklets for the sentence evaluation test and 6 for the headlines test. The booklets contained identical cover pages (except for level and form designation); the vocabulary test was identical in all of the sentence evaluation booklets. Samples of sentence evaluation and headlines booklets are given in Appendix E.

Samples tested

As was seen in the discussion of the construction of instruments, it was planned to administer the alternate forms of these instruments to random divisions of the classes to be tested, in order to obtain statistically valid comparisons of proportions of correct responses to MGF-H and MGF-L usages. Because each word was presented in different usages in two test forms, a further design feature was that there should be a 2 x 3 design such that equal numbers would take each possible combination of alternate forms at a given level. This was done in order to investigate any possible interaction between types of test instruments and the usages represented in given forms. In view of the fact that the instruments were administered in a constant order, it was possible that the responses to the headlines items might be affected by the usages of the words that the examinee had encountered when he took the sentence evaluation test. It was planned to test the possibility of this interaction by a two-way analysis of variance with m cases per cell. At the data collection stage, the six possible form combinations were distributed to random sixths of the classes tested. At the data analysis stage, cases were eliminated randomly in such a way that the numbers in each cell of the 2 x 3 matrices for each level and grade were equalized.

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[3] There were two exceptions to this rule. Item 20 was used instead of 19 because 19 concerned a word used in this study, PRESERVE. Item 44 was taken instead of 43 because the latter concerned a word considered to be somewhat outdated, COIFFURE.

To obtain data that would permit comparisons between grades for a given level, Level 1 was planned to be administered to classes at both grades 3 and 6, while Levels 2 and 3 were to be administered to classes at both grades 6 and 9. (Levels 2 and 3 were considered to be too difficult for grade 3 children, and Level 1 too simple for grade 9.) To the extent possible, the assignment of a particular class to a level was to be random.

To obtain sufficiently reliable results, it was felt desirable to administer each of the three forms of the Sentence Evaluation Test to a minimum of 100 pupils at each level and grade to be tested, and correspondingly, each of the two forms of the Headlines test to a minimum of 150 pupils at each level and grade. Data collection activities were planned with this objective in mind, but the objective was not completely attained in all cases. The objective was over-fulfilled for Level 1 at grade 3, however, where 426 pupils were tested; it was satisfactorily fulfilled for all levels at grade 6, where 301, 357, and 354 pupils were tested with Levels 1, 2, and 3, respectively. At grade 9, the numbers of pupils tested with Levels 2 and 3, 287 and 288 respectively, were slightly short of the goal.

In all, more than 2000 pupils were tested in May 1970. These pupils comprised practically all pupils at grades 3, 6, and 9 at 17 schools in three communities. The largest number, 823, came from elementary, middle, and secondary schools in Dover Capital School District, Delaware. An almost comparable number, 708, came from a similar distribution of schools in Bensalem Township, Pennsylvania (on the northern edge of metropolitan Philadelphia) and 473 came from all three levels of schools in New Brunswick, N. J. In each community an effort was made to obtain cooperation from a representative group of schools in the lower grades; in all three communities, the grade 9 pupils were from a single junior or senior high school that drew from all segments of the community. It is believed that the samples can be regarded as reasonably representative of grades3, 6, and 9 in these communities.

Procedures in test administration

Testing was personally conducted by research assistants from the project staff. They introduced the testing as part of a research project concerned with the development of English language skills; pupils were told that the results would have no bearing on their school grades. Pupils were directed to follow the printed instructions for each test.

The arrangements for the testing permitted the work to be done at a single sitting, which was generally a class period of 40 to 50 minutes in length. This time proved ample to allow all or nearly all pupils to complete the tests (in the sense of trying all items). The order of testing was constant for all pupils: The Sentence Evaluation (Word Uses) test was performed first, followed by the 25 vocabulary items and the Headlines test. As pupils finished the booklet containing the Sentence Evaluation Test and the vocabulary test, they had to pass them in, at which time they were permitted to begin work on the Headlines test. All tests were given, therefore, without time limits.

Scoring of the tests

The Sentence Evaluation and vocabulary tests presented no problem in scoring since they were of a completely objective type. After the raw data on the responses for these tests were keypunched, the following scores were obtained by computer:

Sentence Evaluation Test:

E_1	Number correct (marked RIGHT) for MGF-H items
E_2	No. no response for MGF-H items
E_3	Number correct (marked RIGHT) for MGF-L items
E_4	No. no response for MGF-L items
E_5	Number correct (marked WRONG) for anomalous items
E_6	No. no response for anomalous items
E_7	Total number correct = $E_1 + E_3 + E_5$
E_8	Total number no response = $E_2 + E_4 + E_6$

Wide Range Vocabulary Test (adaptation):

V_1	Number correct
V_2	Formula score = $R - (1/4) W$, rounded to an integer
V_3	Number of last item marked

The responses to the Headlines test, however, had to be scored by subjective methods. For each response, it was necessary to evaluate whether the paraphrase written by the subject reflected an adequate degree of comprehension of the underlined word in the stimulus sentence.

After considerable working over of the response data, the following assumptions and codes were established:

Assumption 1: The score is to be assigned on the basis of the coder's judgment of the respondent's understanding of the underlined word.

Assumption 2: The score should not depend upon the respondent's understanding, or lack of understanding, of the remainder of the sentence.

Codes:

1 : Correct in the intended meaning and grammatical function (i.e., the "high frequency" usage for MGF-H words and the "low frequency" usage for MGF-L words).

2 : Correct in the intended grammatical function, but in a secondary meaning.

3 : The word was understood in a grammatical function and meaning contrary to that intended in the construction of the item. (Note: For most items, this constituted an incorrect response. However, it turned out that a few of our items were ambiguous in that they were open to two or more interpretations. See a further note on this matter below.)

4 : Incorrect: meaning clearly not understood.

5 : Partial comprehension: understanding of the intended meaning and grammatical function was necessary to make the response, but the response itself does not properly represent the underlined word.

6 : Nonscorable: the coder cannot objectively judge whether or not the underlined word was understood. (I.e., no evidence of the meaning of the underlined word appears, or an ambiguous word is used in the response so that the meaning is not clear.)

7 : The response represents [by a kind of unconscious play on words] both of the intended meanings and grammatical functions.

8 : Nonscorable because of

(a) illegibility of response
(b) irrelevancy of response
(c) use of the underlined word or its compounds or inflections, contrary to directions. (An exception was that "turn over" was acceptable as a paraphrase of OVERTURN.)

9 : Nonscorable because there is evidence that the response was copied from another form of the test ("cheating").

0 : No response: nothing written.

All response positions were inspected by one of several research assistants assigned to do the coding, and codes were assigned according to the above scheme. In general, results were analyzed on the basis of the coding of a single person. Coders went through a training period in which the above codes were developed and discussed. After this training period, a formal study of coding reliability was carried out.

Coder reliability study - Headlines Test

First, by pulling every nth paper in the total set available for a given form and level (including both grades for a given level)--with n adjusted to yield the correct result for a given set of papers--each of three coders selected approximately 50 papers in Form A and 50 papers in Form B, at a given level, and proceeded to code them according to the key that had been established. Each set of coded papers was then further divided into two sets, each of these sets then being independently coded by one of two other coders. In this way reliabilities of coding could be established for all possible pairs of coders for both forms for two of the three levels. That is, if we designate the coders by the letters A, B, and C, two independent sets of codings were obtained according to the following scheme (numbers in cells are numbers of papers coded):

	Coder Combination	Form A	Form B	Total
Level 1	A-B	25	26	51
	A-C	25	25	50
		50	51	101
Level 2	B-A	24	26	50
	B-C	25	25	50
		49	51	100

	Coder Combination	Form A	Form B	Total
Level 3	C-A	26	29	55
	C-B	20	26	46
		46	55	101

A computer program was written to analyze the results of this coder reliability study item by item. For each item, form, level, and pair of coders, the percentage of agreement was computed on the basis of the ratio of the number of exact agreements in coding to the total number of codes assigned, exclusive of cases of no response. Out of 252 item-agreement percentages so formed, exactly one-third were 100%. The remainder ranged from 66% to 96%, the median of the total distribution being at 95%. This would appear to represent a satisfactory level of agreement.

Table 5.2 provides a summary of the item-agreement values. Certain trends are apparent in this table, but they are so slight that it has not been considered worthwhile to test them for significance:

(1) There is slightly less agreement on the coding of "low frequency" grammatical functions than for the coding of the "high frequency" grammatical functions.

(2) The coding of items in Form B is slightly less reliable than that for Form A items. The only explanation that can be offered for this is that the coders worked on Form B subsequently to Form A, and possibly became slightly less attentive by the time they reached Form B.

(3) Coding was slightly less reliable with increasing level. This effect, however, may be associated with the assignment of coder pairs; pair A-C tended to show less agreement than the other pairs. It cannot be said, however, that any one coder was consistently less in agreement with his colleagues than the other coders.

Table 5.3 presents for each level a matrix showing the joint frequency distribution of individual codes, summed over items and coder-combinations.

Table 5.2

Results of Coder Reliability Study for Headlines Test

Entries Are Average Percentages of Agreement over Items

		Form A			Form B			Both Forms		
	H vs.	Coder Combination			Coder Combination			Coder Combination		
Level	L			Total			Total			Total
		A-B	A-C		A-B	A-C		A-B	A-C	
1	H	99.19	91.84	95.37	96.40	89.09	92.95	97.86	90.53	94.22
	L	98.67	89.06	93.66	98.65	88.01	93.21	98.66	88.51	93.43
	Total	98.94	90.51	94.56	97.58	88.52	93.09	98.26	89.52	93.82
		B-A	B-C		B-A	B-C		B-A	B-C	
2	H	92.39	93.24	92.86	92.24	94.86	93.50	92.31	94.09	93.20
	L	94.44	95.42	94.92	88.09	92.74	90.27	91.41	94.14	92.71
	Total	93.46	94.38	93.94	90.26	93.85	91.96	91.86	94.12	92.95
		C-B	C-A		C-B	C-A		C-B	C-A	
3	H	99.43	89.62	93.88	97.47	89.70	93.28	98.50	89.66	93.60
	L	99.41	85.37	91.48	94.35	83.26	88.48	96.76	84.26	89.91
	Total	99.42	87.59	92.74	95.84	86.33	90.77	97.63	86.96	91.75

By Coder Combinations:

	A-B		A-C		B-C
Level 1	98.26	Level 1	89.52	Level 2	94.12
Level 2	91.86	Level 3	86.96	Level 3	97.63
Combined	95.06	Combined	88.24	Combined	95.87

The row and column sums (labeled RS and CS, respectively) show the distributions of codes assigned. (The occasional cases in which "0", the "no response" code, was paired with another code are not reflected in row and column sums; these represent either coding or punching errors but are of negligible frequency.) There seems to be no particular pattern of disagreement or confusion in these matrices; the various codes are confused with each roughly in proportion to their relative frequencies.

Scores assigned for Headlines Test

The following scores were obtained by computer for the Headlines Test:

H_1 Number correct (codes 1 and 2, and sometimes 3*) for words in high frequency usage

H_2 Number of "no response" codes (code 0) for words in high frequency usage

H_3 Number correct (codes 1 and 2, and sometimes 3*) for words in low frequency usage

H_4 Number of "no response" codes (code 0) for words in low frequency usage

H_5 Total number correct ($H_1 + H_3$)

H_6 Total number "no response" ($H_2 + H_4$)

H_7 Difference between number correct for high and number correct for low ($H_1 - H_3$)

*As noted earlier, certain items were recognized as being ambiguous, i.e., open to interpretation using either the "high frequency" or "low frequency" usages. A code of "3" for the following items was scored as "correct":

Level 1, Form A, Item 19: RUNNER GAME FOR RACE
(intended: "low usage," adjective)

Level 1, Form B, Item 2: PRIVATE SCHOOLS OPEN
(intended: "high usage," adjective)

Level 1, Form B, Item 5: TEACHERS FACE GRAVE PROBLEMS
(intended: "low usage," adjective)

Table 5.3

Reliability Check Summary Matrix--MGF Study-Phase II

Level 1 (N = 101)

Codes (2^{nd} Coder)

Codes (1^{st} Coder)	0	1	2	3	4	5	6	7	8	9	RS
0	441	0	0	0	0	0	0	0	0	0	(441)
1	6	936	2	1	4	7	3	0	2	0	955
2	1	0	15	0	1	0	0	0	0	0	16
3	0	1	0	23	1	0	0	0	0	0	25
4	0	4	1	0	174	8	7	0	10	0	204
5	0	9	0	0	4	112	2	0	4	0	131
6	0	0	0	0	4	3	100	0	3	0	110
7	0	0	0	0	0	0	0	0	0	0	0
8	0	2	2	0	7	2	3	0	215	0	231
9	0	0	0	0	0	0	0	0	0	1	1
CS	(448)	952	20	24	195	132	115	0	234	1	1673

#AGREE= 1576 %AGREE= 94.20

Table 5.3 (Contd.)

Reliability Check Summary Matrix--MGF Study-Phase II

Level 2 (N = 100)

Codes (2^{nd} Coder)

Codes (1^{st} Coder)

	0	1	2	3	4	5	6	7	8	9	RS
0	201	0	0	0	0	0	1	0	0	0	(202)
1	4	913	0	0	3	16	3	0	1	0	936
2	0	0	20	0	0	1	0	0	0	0	21
3	0	0	0	8	0	0	0	0	0	0	8
4	2	2	1	1	252	8	5	0	8	0	277
5	0	27	0	1	11	222	2	0	4	0	267
6	0	0	0	1	3	1	35	0	2	0	42
7	0	0	0	0	0	0	0	3	0	0	3
8	1	4	0	1	12	3	5	0	312	0	337
9	0	0	0	0	0	0	0	0	0	0	0
CS	(208)	946	21	12	281	251	50	3	327	0	1891

#AGREE= 1765 %AGREE= 93.34

Table 5.3 (Contd.)

Reliability Check Summary Matrix--MGF Study-Phase II

Level 3 (N = 101)

Codes (2nd Coder)

Codes (1st Coder)	0	1	2	3	4	5	6	7	8	9	RS
0	432	0	0	0	1	1	0	0	0	0	(434)
1	0	649	0	0	13	14	1	0	3	0	680
2	0	0	12	0	0	0	0	0	0	0	12
3	0	0	4	42	2	0	0	0	1	0	49
4	0	6	1	1	354	8	2	0	8	0	380
5	0	14	1	0	10	169	2	0	3	0	199
6	0	4	0	1	9	4	37	0	1	0	56
7	0	4	0	0	0	1	0	2	0	0	7
8	0	1	1	2	13	2	1	0	284	0	304
9	0	0	0	0	0	0	0	0	0	0	0
CS	(432)	678	19	46	401	198	43	2	300	0	1687

#AGREE= 1549 %AGREE= 91.820

Level 3, Form A, Item 1: NOVEL IDEA WINS ATTENTION OF SCIENTIFIC LEADER
(intended: "low usage," adjective)

Level 3, Form A, Item 20: PROSECUTOR PRESENTS PRIMARY EVIDENCE
(intended: "high usage," adjective)

It is interesting to note that every one of these "ambiguous" items was originally written with the intention that the underlined word be interpreted as an adjective, and that the alternative and possible interpretation of the word as a noun was overlooked. In retrospect, it appears that it would have been difficult to write the items in such a way as to preclude the alternative interpretation.

RESULTS

In order to obtain equal numbers of cases in the cells of the 2 x 3 table of combinations of Evaluation and Headlines test forms, it was necessary to exclude a certain number of cases randomly. The final results were based on 1866 cases, with the exclusion of 133 cases, broken down as follows:

	Total Cases Used	Cases Excluded	Total Cases Available
Level 1, Grade 3:	414	15	429
Level 1, Grade 6:	240	56	296
Level 2, Grade 6:	336	19	355
Level 2, Grade 9:	270	14	284
Level 3, Grade 6:	324	23	347
Level 3, Grade 9:	282	6	288
	1866	133	1999

The figure of 1999 cases available is exclusive of about 10 cases that for some reason had taken only one of the two tests.

The major results of the study are displayed in Tables 5.4, 5.5, 5.6, and 5.7 which appear on pp. 131-175. Tables 5.4 and 5.5, which concern the Sentence Evaluation test and the Headlines test, respectively, are organized in three parts for each level and grade combination:

(a) For each word, frequencies and proportions of correct and incorrect responses to words in "high" and "low" frequency grammatical function (and "anomalous" function, for the Evaluation test data), with significance tests for the contrast between "high" and "low" usage responses;

(b) For each word, an analysis of variance of the proportions of correct responses in the 2 x 3 table of form combinations, in order to test the possibility of interaction between forms;

(c) For each word, biserial correlations of correct responses to "high," "low," and (for Evaluation Test responses) "anomalous" stimuli, with age, vocabulary score, evaluation test score, and headlines test score. These tables also give mean age, vocabulary, evaluation, and headlines test scores for those giving a correct response. As will be noted, there is some systematic variation in evaluation and headlines test scores depending upon form; these tables therefore give mean scores for age, vocabulary, evaluation, and headlines by form. Evaluation and headlines test scores are those identified as E_7 and H_5 above.

Table 5.6 gives, for each level-grade combination, intercorrelations among the variables age, vocabulary, evaluation score, and headlines score, for each Evaluation-Headline test form combination, as well as significance tests for differences in mean scores of these variables among or between evaluation test forms and headlines test forms, respectively.

Table 5.7 gives, for each level, information concerning the significance of differences between proportions correct on each word at the two grades within a level.

These results permit giving a number of fairly definitive answers to a number of questions towards which this study was oriented.

First we must consider a number of essentially methodological questions:

(1) Was the random assignment of cases to evaluation and headline test form combinations successful in yielding comparable groups? To answer this question, we examine the results of the ANOVAS for age and vocabulary in Table 5.6. Both age and vocabulary scores would appear to be relevant control variables for checking randomness of selection. Furthermore, it will be observed in the analysis of the biserial correlations in Tables 5.4 and 5.5 that both age and vocabulary show significant correlations with performance on the evaluation and headlines test.

The answer to the question raised here appears to be affirmative. Out of all the 60 probability values for the F-ratios computed for age and vocabulary contrasts among evaluation form scores or between headline form scores in Table 5.6, only one passes the usual test of significance; it is a probability value of .003. It is probably to be taken as reflecting a chance sampling effect. On the whole, the 60 probability values form an approximately rectangular distribution, as one would expect them to do if the samples were randomly selected with respect to age and vocabulary score.

(2) Is there any interaction or other influence between the Evaluation forms and the Headlines forms? To answer this question, we examine the analysis of variance results given in those parts of Tables 5.4 and 5.5 which show proportions of correct responses broken down by form combinations. Actually, since the pupils took the Evaluation test before they took the Headlines test, the results for the Evaluation test (in Table 5.4) should have no bearing on the question of interaction. Significant interactions in Table 5.4 should arise only as a matter of chance fluctuation. Out of 126 F-ratios for form x form interaction in Table 5.4, only 3 are significant at the 1% level--whereas one would expect about 1 by chance. There are also 4 F-ratios for the Headlines test that are significant at the 1% level

(in fact, 2 of them are significant at the .1% level); these, however, must be regarded as arising from sampling fluctuation because it does not make sense to assume that the performance on the Evaluation test could have differed depending upon which Headlines test form the pupil was to take subsequently.

The results in Table 5.5 could, however, be interpreted as showing a significant effect of the Evaluation test form upon performance in the Headlines test--if indeed there were any large number of significant interactions. But as a matter of fact, there are no interactions in Table 5.5 significant beyond the 1% level; only 2 are significant at the 5% level, fewer than one would expect by chance. There are 4 F-ratios for the Evaluation test main effect that are significant beyond the 1% level; such F-ratios, if truly significant, would indicate that performance on the Headlines test varied significantly depending upon which Evaluation test form had been taken. The most extreme case is that for the word PRIVATE at Level 1, grade 3, where the overall proportions of correct response to the Headlines items (both "high" and "low" usage) were .101, .246, and .116, respectively, depending upon whether the pupil had been exposed to the word in its "high," "low," or "anomalous" usage in the Evaluation form. That is, pupils paraphrased the Headlines items better if they had been exposed to the item in the "low" Evaluation item: "A private won a medal during the war." One might attempt to interpret this result if a similar phenomenon occurred with the same item at grade 6, but it did not; in fact, the overall proportions at grade 6 were .550, .487, and .412, respectively. There was in fact no case in which consistent results of this type were obtained for an item at the two grades where it was tested. We may then conclude that there were no truly significant interactions or other influences operating between the Evaluation test forms and the Headlines test forms. The results obtained with the two types of tests can be regarded as experimentally independent. (This is not to say, of course, that the data were uncorrelated. As we will see, there is evidence that performances on the two tests were correlated in the sense that students who did well on one test also tended to do well on the other.)

(3) Are the different forms of the Evaluation test and the Headlines test, respectively, equivalent in difficulty? In advance of the analysis of data there was no way of insuring form equivalence, and as a matter of fact, form equivalence was not necessary for the design of the study since analysis was to focus on the results for individual words. It was desirable to investigate form equivalence, however, in order to see whether it would be feasible to pool scores from different forms for correlational analysis.

Means Evaluation test and Headlines test scores, by form, for each level and grade, are to be found in Tables 5.4 and 5.5. However, they are summarized below, with appropriate significance tests:

Mean Evaluation Test Scores
(Maximum Score Possible Is 21)

	Form A	Form B	Form C	F	p
Level 1, Gr. 3	13.54	14.41	15.36	9.78	<.001
Level 1, Gr. 6	15.89	17.69	17.91	15.45	<.001
Level 2, Gr. 6	16.05	15.38	15.44	2.22	>.05
Level 2, Gr. 9	17.41	16.99	16.72	1.83	>.05
Level 3, Gr. 6	14.10	13.02	14.41	6.23	<.01
Level 3, Gr. 9	15.93	15.70	15.98	.28	n.s.

Mean Headlines Test Scores
(Maximum Score Possible Is 21)

	Form A	Form B	F	p
Level 1, Gr. 3	6.63	4.39	26.43	<.001
Level 1, Gr. 6	13.48	9.52	28.35	<.001
Level 2, Gr. 6	7.92	9.20	5.02	<.05
Level 2, Gr. 9	11.86	11.75	.03	n.s.
Level 3, Gr. 6	6.39	6.17	.20	n.s.
Level 3, Gr. 9	10.72	9.05	8.99	<.01

The Evaluation test forms are consistently nonequivalent at Level 1; at the other levels they are approximately equivalent except at Level 3, grade 6. A somewhat parallel situation exists for the Headlines test forms: they are consistently nonequivalent at Level 1, but show approximate equivalence at some other levels and grades.

Because of the varying degrees of form equivalence, we have avoided computing correlational data using scores pooled across forms.

Results for the Main Hypotheses of the Study

The main hypothesis of this study was that school-age children will have more difficulty in understanding sentences in which words are used in relatively less frequent grammatical functions than sentences in which these words appear in more frequent grammatical functions.

Data bearing on this hypothesis appear in Tables 5.4 and 5.5. In Table 5.4, pertaining to performance on words in the Sentence Evaluation test, we have for each level and grade combination the proportions of correct responses to words in "high frequency" grammatical function as compared to the proportions of correct responses to words in "low frequency" grammatical function, and the significance of the differences. (The proportions of correct responses to words in "anomalous" usage are also given, but since these items were merely "fillers," they are of no immediate interest here.)

Likewise, in Table 5.5, pertaining to responses in the Headlines test, we have figures for the significance of the differences between proportions of correct responses for "high frequency" and "low frequency" items.

In both cases, the significance tests were computed so that positive values would favor the hypothesis. Table 5.8 (p. 176) is a summary of these significance tests. From this table, it is seen that the majority of the tests favor the hypothesis, particularly in the case of those from the Sentence Evaluation tests. A simple sign test of the number of differences favoring the hypothesis yields the answer that all of the level-grade results for the Evaluation test favor the hypothesis at better than the .001 level; i.e., at least 18 out of the 21 words at each level and grade show differences in favor of the hypothesis. For the Headlines test, the results are not so consistently in favor of the hypothesis, but the trend is certainly in that direction.

It is even more noteworthy that for the Evaluation test, 77 out of a possible total of 126 differences were positive and significant beyond the .1% level; no differences were negative and significant at the same level. For the Headlines test, 46 out of 126 differences were positive and significant beyond the .1% level, while 21 differences were significant at the same level but in an opposite direction.

These results would appear to confirm the major hypothesis of the study. Before drawing a final conclusion, however, it is necessary to examine the results more closely. It is possible, for example, that differing grammatical function was not the critical factor, or not the only critical factor. Semantic differences correlated with grammatical functions could have produced the results; that is to say, it is possible that the respondents were less familiar with infrequent semantic usages of the words and that the differences between "high frequency" and "low frequency" grammatical usage responses were most striking when such semantic differences existed.

To explore this possibility, consideration was first given to contrasting the results for words in semantic code "1" with the results for words in the other semantic codes. (See Chapter II for a description of these semantic codes.) However, it appeared more useful to regroup the words in terms of whether important semantic differences were actually present in the "high" and "low" usages employed in the Evaluation and Headlines forms. Pertinent data were then culled from the previous tables and reorganized in the form of Table 5.9 (pp. 177-182). The preparation of this table also afforded an opportunity to align results from the two grades within a level in order to examine the degree of consistency across grades. Also, the table presents data on the biserial correlations of the responses with Vocabulary scores, data that are of considerable interest in interpreting the overall results.

At Level 1, 8 words were judged to have essentially the same semantic content in both H and L grammatical usages in both the Evaluation and Headlines tests, while 13 words were judged to have important semantic differences associated with differences in grammatical function. Among the former words, for example, were AGE (H-N, L-V), END (H-N, L-V), and TAKE (H-V, L-N). Among the latter were such words as CHANCE (H-N, L-V), FREE (H-A, L-V), and GAME (H-N, L-A): in the H usage, CHANCE had the meaning "opportunity" ("We did not have a chance to see them"), whereas in the L usage, it had the meaning "take a risk" ("The driver said he would chance the race in the snow"). Similarly, in the H usage, FREE had the meaning "gratis" whereas in the L usage it had the meaning "set loose"; in the H usage, GAME had its usual meaning whereas in the L usage it had the meaning "plucky."

It does not seem worthwhile to attempt to make exact statistical comparisons of the results for the two groups of words; there were, indeed, more instances of highly significant comparisons for the group of words with semantic differences. In the group of words with similar meanings in two grammatical functions, END, LINE, NAME, SIGHT, and WISH were consistent across grades in not exhibiting any significant differences between H and L grammatical functions in the Evaluation test. In the group of words with different semantic content in the two grammatical functions, there was no word that did not show a significant difference (at the 5% level or better) at at least one of the two grades. These results would suggest that at least a part of the variation in results may have been due to differences in semantic content such that the pupils were less familiar with the less frequent semantic usages. Such a result confirms observations that have been made quite often in the past (e.g., by Berwick, 1952; Howards, 1964; Thevaos, 1951).

On the other hand, even among the words with similar semantic content in the two grammatical functions, four were consistent in exhibiting significant differences (at the 5% level or better) in the hypothesized direction over the two grades: AGE, FILL, SIGHT, and TAKE. For the following pairs of sentences, significantly fewer students marked the L usage as "correct":

H He told me his age.
L The trees age every year.

H The men will fill in the hole with dirt.
L They need fill for the holes in the road.

H The valley was a pretty sight from the hill.
L If you are lucky, you will sight a star.

H Our class will take a trip to the zoo.
L The hunters returned with a big take.

If one supposes that the L usages are indeed "correct" or acceptable, these results suggest that the pupils tend to show difficulty in understanding words in unusual grammatical functions even when the semantic content is essentially the same as that associated with the more frequent grammatical function.

We have discussed the results for Level 1, Evaluation test in detail. The reader may inspect the remainder of the results for himself. The general conclusions that seem to emerge from Table 5.9 are as follows:

(1) For the Evaluation test results, there is some tendency towards a greater incidence of highly significant positive results in the case of words in which semantic differences are associated with differences in grammatical function, but there exist also many highly significant positive comparisons for words in which semantic content is essentially the same in the two grammatical functions. In general, these results tend to be consistent over the two grades sampled for a given level of the test. The positive differences that are most striking in this respect are for the following words: AGE, FILL, SIGHT, TAKE, BOTHER, CHANNEL, DRUG, POLL, SNAKE, ECLIPSE, EPIDEMIC, IMPRESS, PARROT, PLANK, SLEIGH, SPLINTER, and STRUCTURE.

(2) Somewhat similar conclusions arise from the data for the Headlines test: the results tend to be more significant for words with different meanings in H and L grammatical usage, but among the words with similar semantic content in H and L grammatical usages, there are many words which show significant differences across grades. Not as many of these differences, however, are significant in the hypothesized direction as is the case for the Evaluation test items. This may be because the Headlines test is a much more exacting task: the student must create a paraphrase for the item. The overall proportions correct are consequently much lower for the Headlines items; the differences may be due not only to the student's ability to

comprehend the word in a given usage but also to his ability, or lack of ability, to write an appropriate paraphrase for the item. In any case, words that show more or less consistent results favoring the major hypothesis of this study are the following: AGE, LINE, WISH, CHANNEL, SCARE, ECLIPSE, EPIDEMIC, OVERTURN, PARROT, PRESSURE, SPLINTER, and STRUCTURE.

The biserial correlations with Vocabulary scores shown in the table aid in the interpretation of these results. It seems reasonable to expect that Vocabulary scores, as measures of general verbal ability, would correlate with performance on the Evaluation and Headlines test. In fact, the correlations of Vocabulary scores with total Evaluation and Headline test scores are generally substantial, as shown in Table 5.6: the correlation is almost always higher with the Headlines test score than with the Evaluation score, however. This may be partly due to the fact that the Evaluation test is a much easier test, with a possible ceiling effect. More probably, the correlation is higher because the Headlines test, with its paraphrasing task, draws upon the pupil's general vocabulary knowledge to a greater extent. Still, the correlation of Vocabulary scores with total Evaluation scores is significantly positive in every case.

It was anticipated that the biserial correlations between vocabulary and performance on both Headlines and Evaluation items would be generally higher for items in "low frequency" grammatical usage; it was reasoned that performance on low frequency items would make more demand on the student's general vocabulary. This turned out not to be the case, at least for the Evaluation test items. The correlations were on the average much lower for items in "low frequency" grammatical usage than for "high frequency" grammatical usage. Possibly many of those who marked L items as "correct" were actually low-verbal-ability students who were deficient in the ability to discriminate correct and incorrect usages; if so, the biserial correlations for these items could be expected to be low. The fact is that the biserial correlations for Evaluation items were generally higher for the "H" items; that is, these are actually better discriminators of verbal ability.

In contrast, the biserial correlations for Headlines items with Vocabulary scores were generally substantial, both for H and L usages.

Comparisons across Grades

Table 5.7 gives, for each level, comparisons of proportions correct between grades, for H, L, and A items in the Evaluation tests and for H and L items in the Headlines test. Nearly all the differences are in a positive direction, as one might expect in view of the general improvement in language skills that occurs with increasing age and grade levels, and the majority of the differences are statistically significant at the 5% level or better. The improvement from grade 3 to grade 6 at Level 1 is especially striking, particularly for Headlines items of both the H and L types, but there is also improvement in H, L, and A types of Evaluation items. Nevertheless, even at grade 6 a number of L-type Evaluation items are still not recognized as correct by substantial proportions of students: the items for CHANCE, FILL, GAME, GRAVE, MILL, PAGE, SIGHT, SKIRT, STRANGER, and TAKE. Also, for most of these words, the students performed poorly in writing paraphrases for L-usages in the Headlines test. Unfortunately, these words were not tested at grade 9; it would be interesting to do so in future studies.

The comparisons between grades 6 and 9 at Levels 2 and 3 do not show the nearly universal improvement that was noted for the grade 3 vs. grade 6 comparisons. However, performance on many words was already quite satisfactory at grade 6, at least in the Evaluation test items.

At Level 2, all H usages in the Evaluation test are correctly recognized by at least 75% of the students in grade 9 except APPEAL; however, the L-usages of BOTHER, CHANNEL, HEDGE, INCENSE, MOTOR, PLANE, POLL, SNAKE, SWAMP, and TWINE are recognized by fewer than 75% of these students. Generally, these words are also ones that are not well paraphrased in the Headlines test even by grade 9 students.

At Level 3, all H usages in the Evaluation test are correctly recognized by at least 75% of the students in grade 9 except BLOUSE (72.3%) and TARRY (71.3%). L-usages are recognized by fewer than 75% of these same students in the case of ANIMATE, BLOUSE, BUFFALO, ECLIPSE, EPIDEMIC, IMPRESS, NOVEL, OUTRAGE, PARROT, PENSION, PLANK, SLEIGH, SPLINTER, STRUCTURE, and TARRY. Likewise, these are generally words that grade 9 students have particular difficulty in paraphrasing in the Headlines test.

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST

LEVEL 1, GRADE 3, ALL CASES

		-----WORDS IN HIGH MGF-----					------WORDS IN LOW MGF------						--WORDS IN ANOMALOUS USAGE--				
WORD	ITEM	FORM	1(R)	2(W)	N,I	TOT.	FORM	1(R)	2(W)	N,I	TOT.	Z(D(R))	FORM	1(W)	2(R)	N,I	TOT.
AGE	2	A	110 0.797	21 0.152	7 0.051	138	C	54 0.391	82 0.594	2 0.014	138	6.86***	B	23 0.167	114 0.826	1 0.007	138
BROKE	9	A	118 0.855	15 0.109	5 0.036	138	C	105 0.761	30 0.217	3 0.022	138	1.99*	B	21 0.152	115 0.833	2 0.014	138
CHANCE	7	B	105 0.761	28 0.203	5 0.036	138	A	53 0.384	82 0.594	3 0.022	138	6.33***	C	44 0.319	91 0.659	3 0.022	138
END	14	A	112 0.812	20 0.145	6 0.043	138	C	118 0.855	17 0.123	3 0.022	138	-0.97	B	30 0.217	103 0.746	5 0.036	138
FILL	3	B	111 0.804	24 0.174	3 0.022	138	C	49 0.355	87 0.630	2 0.014	138	7.56***	A	25 0.181	111 0.804	2 0.014	138
FREE	6	A	105 0.761	28 0.203	5 0.036	138	B	79 0.572	56 0.406	3 0.022	138	3.32***	C	25 0.181	110 0.797	3 0.022	138
GAME	4	B	112 0.812	25 0.181	1 0.007	138	A	20 0.145	111 0.804	7 0.051	138	11.09***	C	17 0.123	119 0.862	2 0.014	138
GRAVE	13	C	108 0.783	26 0.188	4 0.029	138	A	29 0.210	103 0.746	6 0.043	138	9.51***	B	43 0.312	88 0.638	7 0.051	138
LINE	8	C	122 0.884	13 0.094	3 0.022	138	B	111 0.804	25 0.181	2 0.014	138	1.83	A	23 0.167	110 0.797	5 0.036	138
LIVE	11	B	114 0.826	17 0.123	7 0.051	138	C	103 0.746	32 0.232	3 0.022	138	1.62	A	22 0.159	111 0.804	5 0.036	138
MILL	17	C	98 0.710	36 0.261	4 0.029	138	B	29 0.210	105 0.761	4 0.029	138	8.33***	A	17 0.123	114 0.826	7 0.051	138
NAME	19	B	125 0.906	10 0.072	3 0.022	138	A	117 0.848	13 0.094	8 0.058	138	1.47	C	24 0.174	110 0.797	4 0.029	138
PAGE	18	A	119 0.862	12 0.087	7 0.051	138	B	41 0.297	92 0.667	5 0.036	138	9.51***	C	24 0.174	110 0.797	4 0.029	138
PRIVATE	10	B	107 0.775	28 0.203	3 0.022	138	C	72 0.522	63 0.457	3 0.022	138	4.41***	A	34 0.246	98 0.710	6 0.043	138
SEASON	12	A	116 0.841	16 0.116	6 0.043	138	B	86 0.623	47 0.341	5 0.036	138	4.08***	C	64 0.464	70 0.507	4 0.029	138
SIGHT	20	C	112 0.812	23 0.167	3 0.022	138	A	56 0.406	75 0.543	7 0.051		6.91***	B	24 0.174	111 0.804	3 0.022	138
SKIRT	15	C	113 0.819	21 0.152	4 0.029	138	A	22 0.159	109 0.790	7 0.051	138	10.96***	B	41 0.297	94 0.681	3 0.022	138
STRANGER	5	C	110 0.797	26 0.188	2 0.014	138	B	50 0.362	86 0.623	2 0.014	138	7.32***	A	25 0.181	108 0.783	5 0.036	138
TAKE	1	B	114 0.826	23 0.167	1 0.007	138	A	32 0.232	102 0.739	4 0.029	138	9.89***	C	23 0.167	114 0.826	1 0.007	138
TRAIN	16	C	114 0.826	21 0.152	3 0.022	138	B	85 0.616	47 0.341	6 0.043	138	3.89***	A	36 0.261	96 0.696	6 0.043	138
WISH	21	A	112 0.812	22 0.159	4 0.029	138	C	118 0.855	17 0.123	3 0.022	138	-0.97	B	37 0.268	95 0.688	6 0.043	138
COLUMN SUMS			2357 0.813	455 0.157	86 0.030	2898		1429 0.493	1381 0.477	88 0.030	2898			622 0.215	2192 0.756	84 0.029	2898

In this and all succeeding tables: $* p \leqslant .05$; $** p \leqslant .01$; $*** p \leqslant .001$

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 1, GRADE 3, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS--EVALUATION ITEM SCORES

		E(HIGH)			E(LOW)			E(ANOM.)			ALL CASES			EVAL.	HEADL.	E*H
WORD	ITEM	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	F(2,408)	F(1,408)	F(2,408)
AGE	2	0.826	0.768	0.797	0.406	0.377	0.391	0.841	0.812	0.826	0.691	0.652	0.671	44.455***	0.843	0.053
BROKE	9	0.841	0.870	0.855	0.739	0.783	0.761	0.812	0.855	0.833	0.797	0.836	0.816	2.237	1.030	0.016
CHANCE	7	0.725	0.797	0.761	0.449	0.319	0.384	0.710	0.609	0.659	0.628	0.575	0.601	24.429***	1.361	1.935
END	14	0.841	0.783	0.812	0.855	0.855	0.855	0.783	0.710	0.746	0.826	0.783	0.804	2.632	1.248	0.323
FILL	3	0.855	0.754	0.804	0.304	0.406	0.355	0.841	0.768	0.804	0.667	0.643	0.655	51.093***	0.332	2.286
FREE	6	0.783	0.739	0.761	0.536	0.609	0.572	0.783	0.812	0.797	0.700	0.720	0.710	10.120***	0.195	0.597
GAME	4	0.826	0.797	0.812	0.174	0.116	0.145	0.870	0.855	0.862	0.623	0.589	0.606	165.782***	0.887	0.127
GRAVE	13	0.783	0.783	0.783	0.145	0.275	0.210	0.638	0.638	0.638	0.522	0.565	0.543	64.207***	1.028	1.028
LINE	8	0.870	0.899	0.884	0.797	0.812	0.804	0.797	0.797	0.797	0.821	0.836	0.829	2.254	0.152	0.051
LIVE	11	0.855	0.797	0.826	0.725	0.768	0.746	0.812	0.797	0.804	0.797	0.787	0.792	1.417	0.059	0.540
MILL	17	0.710	0.710	0.710	0.203	0.217	0.210	0.826	0.826	0.826	0.580	0.585	0.582	84.806***	0.014	0.014
NAME	19	0.884	0.928	0.906	0.870	0.826	0.848	0.768	0.826	0.797	0.841	0.860	0.850	3.224*	0.305	0.821
PAGE	18	0.870	0.855	0.862	0.232	0.362	0.297	0.797	0.797	0.797	0.633	0.671	0.652	80.443***	0.942	1.340
PRIVATE	10	0.739	0.812	0.775	0.609	0.435	0.522	0.681	0.739	0.710	0.676	0.662	0.669	11.418***	0.104	3.145*
SEASON	12	0.899	0.783	0.841	0.580	0.667	0.623	0.565	0.449	0.507	0.681	0.633	0.657	19.148***	1.170	2.294
SIGHT	20	0.783	0.841	0.812	0.391	0.420	0.406	0.739	0.870	0.804	0.638	0.710	0.674	40.290***	2.942	0.510
SKIRT	15	0.826	0.812	0.819	0.145	0.174	0.159	0.681	0.681	0.681	0.551	0.556	0.553	98.882***	0.014	0.100
STRANGER	5	0.826	0.768	0.797	0.275	0.449	0.362	0.826	0.739	0.783	0.643	0.652	0.647	45.023***	0.052	3.773*
TAKE	1	0.841	0.812	0.826	0.261	0.203	0.232	0.812	0.841	0.826	0.638	0.618	0.628	103.446***	0.246	0.431
TRAIN	16	0.826	0.826	0.826	0.609	0.623	0.616	0.696	0.696	0.696	0.710	0.715	0.713	7.758***	0.012	0.012
WISH	21	0.812	0.812	0.812	0.884	0.826	0.855	0.652	0.725	0.688	0.783	0.787	0.785	6.233**	0.015	0.891

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 1, GRADE 3, ALL CASES

BISERIAL CORRELATICNS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
THE SECCND LINE GIVES BISERIALS R'S

		WORDS IN HIGH MGF					WORDS IN LOW MGF					WORDS IN ANOMALOUS USAGE				
WORD	ITEM	FORM	A	V	E	H	FORM	A	V	E	H	FORM	A	V	E	H
AGE	2	A	8.70	7.32	14.60	6.08	C	8.57	6.63	15.87	6.59	B	8.60	7.19	15.19	5.79
			-0.013	0.579	0.882	0.451		-0.090	0.036	0.148	0.162		-0.137	0.509	0.749	0.341
BROKE	9	A	8.69	6.99	14.39	6.04	C	8.60	6.90	16.24	6.27	B	8.60	6.94	15.23	5.89
			-0.048	0.457	0.939	0.565		-0.117	0.249	0.614	0.222		-0.123	0.307	0.809	0.426
CHANCE	7	B	8.59	6.82	15.18	5.71	A	8.72	5.66	13.74	4.66	C	8.63	7.14	16.46	6.88
			-0.128	0.149	0.563	0.219		0.023	-0.220	0.057	-0.167		-0.011	0.293	0.565	0.393
END	14	A	8.69	7.27	14.61	6.22	C	8.57	7.04	16.03	6.58	B	8.60	7.28	15.32	6.16
			-0.075	0.578	0.945	0.577		-0.368	0.516	0.719	0.581		-0.079	0.423	0.632	0.437
FILL	3	B	8.57	7.32	15.27	6.11	C	8.63	5.92	14.35	3.94	A	8.69	7.12	14.48	5.99
			-0.258	0.561	0.745	0.515		0.003	-0.134	-0.277	-0.377		-0.043	0.448	0.804	0.404
FREE	6	A	8.67	7.35	14.53	6.09	B	8.57	7.15	15.19	6.11	C	8.61	7.09	16.37	6.64
			-0.144	0.525	0.718	0.394		-0.124	0.216	0.339	0.260		-0.094	0.422	0.814	0.473
GAME	4	B	8.61	7.09	15.41	5.96	A	8.70	5.00	12.60	3.50	C	8.61	6.94	16.18	6.17
			-0.077	0.395	0.895	0.430		-0.003	-0.246	-0.177	-0.274		-0.156	0.441	0.911	0.273
GRAVE	13	C	8.56	7.25	16.10	6.59	A	8.76	5.66	13.41	4.86	B	8.68	6.98	15.68	5.91
			-0.312	0.503	0.562	0.421		0.066	-0.160	-0.028	-0.087		0.159	0.174	0.645	0.226
LINE	8	C	8.59	6.75	15.94	6.06	B	8.59	7.23	15.14	6.18	A	8.71	7.22	14.66	6.30
			-0.286	0.301	0.751	0.212		-0.132	0.492	0.636	0.561		0.028	0.507	0.935	0.592
LIVE	11	B	8.60	7.05	14.93	5.75	C	8.64	6.59	15.78	6.19	A	8.70	7.12	14.47	6.16
			-0.137	0.391	0.496	0.310		0.038	0.062	0.276	0.175		-0.001	0.448	0.796	0.518
MILL	17	C	8.55	7.49	16.62	6.93	B	8.76	4.93	12.93	3.21	A	8.72	6.95	14.40	5.93
			-0.258	0.516	0.748	0.474		0.157	-0.315	-0.323	-0.341		0.085	0.355	0.818	0.402
NAME	19	B	8.59	6.81	14.93	5.45	A	8.68	6.86	14.50	5.97	C	8.57	6.88	16.28	6.35
			-0.268	0.312	0.831	0.164		-0.111	0.320	1.01[illegible]	0.486		-0.255	0.277	0.741	0.301
PAGE	18	A	8.71	6.90	14.30	5.92	B	8.73	6.66	14.37	5.24	C	8.57	7.00	16.31	6.37
			0.019	0.385	0.879	0.477		0.148	0.016	-0.012	-0.013		-0.255	0.359	0.763	0.317
PRIVATE	10	B	8.62	6.73	15.12	5.94	C	8.67	7.50	16.24	7.56	A	8.65	7.33	14.52	6.09
			-0.026	0.096	0.548	0.363		0.074	0.329	0.327	0.471		-0.167	0.431	0.600	0.337
SEASON	12	A	8.72	6.99	14.41	5.97	B	8.67	6.97	15.23	5.88	C	8.63	6.63	16.26	6.56
			0.071	0.421	0.882	0.468		0.134	0.162	0.402	0.209		-0.004	0.045	0.325	0.192
SIGHT	20	C	8.61	7.00	16.29	6.42	A	8.80	6.21	14.07	5.71	B	8.55	6.93	15.07	5.85
			-0.110	0.382	0.800	0.367		0.170	-0.080	0.164	0.079		-0.341	0.259	0.573	0.346
SKIRT	15	C	8.56	7.22	16.19	6.53	A	8.73	3.77	12.36	1.14	B	8.54	7.27	15.64	6.28
			-0.355	0.565	0.731	0.452		0.026	-0.459	-0.229	-0.638		-0.245	0.339	0.699	0.409
STRANGER	5	C	8.60	7.15	16.34	6.74	B	8.66	5.74	14.58	4.58	A	8.69	7.05	14.49	6.29
			-0.134	0.467	0.785	0.531		0.057	-0.214	0.048	-0.157		-0.076	0.361	0.746	0.550
TAKE	1	B	8.59	7.17	15.28	5.90	A	8.81	6.13	13.41	4.56	C	8.61	6.96	16.04	6.40
			-0.181	0.487	0.833	0.423		0.135	-0.076	-0.031	-0.143		-0.083	0.374	0.618	0.382
TRAIN	16	C	8.61	6.56	16.20	6.06	B	8.65	6.81	15.48	5.64	A	8.74	7.03	14.75	6.48
			-0.083	0.060	0.771	0.153		0.061	0.095	0.516	0.116		0.118	0.263	0.710	0.499
WISH	21	A	8.68	6.77	14.48	6.11	C	8.59	7.07	16.26	6.41	B	8.53	7.64	15.62	6.47
			-0.118	0.194	0.834	0.497		-0.219	0.540	0.964	0.448		-0.300	0.538	0.703	0.503
MEANS BY FORM		A	8.70	6.51	13.54	5.38	B	8.62	6.59	14.41	5.31	C	8.63	6.49	15.36	5.83
S.D.'S BY FORM			0.62	3.91	3.38	4.36		0.63	3.82	3.34	4.50		0.64	4.04	3.50	4.79
N			138.00					138.00					138.00			

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 1, GRADE 6, ALL CASES

		-----WORDS IN HIGH MGF-----					------WORDS IN LOW MGF------						--WORDS IN ANOMALOUS USAGE--				
WORD	ITEM	FORM	1(R)	2(W)	N,I	TOT.	FORM	1(R)	2(W)	N,I	TOT.	Z(D(R))	FORM	1(W)	2(R)	N,I	TOT.
AGE	2	A	73 0.912	7 0.087	0 0.0	80	C	64 0.800	15 0.188	1 0.012	80	2.03*	B	2 0.025	78 0.975	0 0.0	80
BROKE	9	A	79 0.987	1 0.012	0 0.0	80	C	66 0.825	13 0.162	1 0.012	80	3.53***	B	3 0.037	77 0.962	0 0.0	80
CHANCE	7	B	73 0.912	7 0.087	0 0.0	80	A	42 0.525	38 0.475	0 0.0	80	5.45***	C	14 0.175	65 0.813	1 0.012	80
END	14	A	78 0.975	2 0.025	0 0.0	80	C	75 0.938	3 0.037	2 0.025	80	1.16	B	6 0.075	74 0.925	0 0.0	80
FILL	3	B	74 0.925	6 0.075	0 0.0	80	C	14 0.175	65 0.813	1 0.012	80	9.53***	A	4 0.050	76 0.950	0 0.0	80
FREE	6	A	74 0.925	6 0.075	0 0.0	80	B	69 0.862	11 0.137	0 0.0	80	1.28	C	3 0.037	75 0.938	2 0.025	80
GAME	4	B	80 1.000	0 0.0	0 0.0	80	A	20 0.250	60 0.750	0 0.0	80	9.80***	C	6 0.075	73 0.912	1 0.012	80
GRAVE	13	C	76 0.950	3 0.037	1 0.012	80	A	32 0.400	48 0.600	0 0.0	80	7.43***	B	18 0.225	62 0.775	0 0.0	80
LINE	8	C	78 0.975	1 0.012	1 0.012	80	B	72 0.900	8 0.100	0 0.0	80	1.96	A	5 0.063	74 0.925	1 0.012	80
LIVE	11	B	77 0.962	3 0.037	0 0.0	80	C	63 0.787	16 0.200	1 0.012	80	3.35***	A	7 0.087	73 0.912	0 0.0	80
MILL	17	C	74 0.925	5 0.063	1 0.012	80	B	24 0.300	56 0.700	0 0.0	80	8.11***	A	7 0.087	73 0.912	0 0.0	80
NAME	19	B	80 1.000	0 0.0	0 0.0	80	A	75 0.938	5 0.063	0 0.0	80	2.27*	C	4 0.050	75 0.938	1 0.012	80
PAGE	18	A	77 0.962	3 0.037	0 0.0	80	B	41 0.512	38 0.475	1 0.012	80	6.47***	C	5 0.063	74 0.925	1 0.012	80
PRIVATE	10	B	73 0.912	7 0.087	0 0.0	80	C	62 0.775	16 0.200	2 0.025	80	2.40*	A	11 0.137	69 0.862	0 0.0	80
SEASON	12	A	75 0.938	5 0.063	0 0.0	80	B	64 0.800	15 0.188	1 0.012	80	2.58*	C	28 0.350	51 0.637	1 0.012	80
SIGHT	20	C	73 0.912	5 0.063	2 0.025	80	A	46 0.575	34 0.425	0 0.0	80	4.89***	B	5 0.063	74 0.925	1 0.012	80
SKIRT	15	C	74 0.925	4 0.050	2 0.025	80	A	11 0.137	69 0.862	0 0.0	80	9.98***	B	5 0.063	75 0.938	0 0.0	80
STRANGER	5	C	76 0.950	3 0.037	1 0.012	80	B	35 0.438	45 0.563	0 0.0	80	7.03***	A	10 0.125	70 0.875	0 0.0	80
TAKE	1	B	74 0.925	6 0.075	0 0.0	80	A	16 0.200	64 0.800	0 0.0	80	9.24***	C	2 0.025	77 0.962	1 0.012	80
TRAIN	16	C	71 0.887	8 0.100	1 0.012	80	B	64 0.800	15 0.188	1 0.012	80	1.52	A	13 0.162	67 0.837	0 0.0	80
WISH	21	A	71 0.887	8 0.100	1 0.012	80	C	77 0.962	1 0.012	2 0.025	80	-1.80	B	5 0.063	75 0.938	0 0.0	80
COLUMN SUMS			1580 0.940	90 0.054	10 0.006	1680		1032 0.614	635 0.378	13 0.008	1680			163 0.097	1507 0.897	10 0.006	1680

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 1, GRADE 6, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS--EVALUATION ITEM SCORES

		E(HIGH)			E(LOW)			E(ANOM.)			ALL CASES			EVAL.	HEADL.	E*H
WORD	ITEM	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	F(2,234)	F(1,234)	F(2,234)
AGE	2	0.925	0.900	0.912	0.775	0.825	0.800	1.000	0.950	0.975	0.900	0.892	0.896	7.002**	0.046	0.603
BROKE	9	1.000	0.975	0.987	0.825	0.825	0.825	1.000	0.925	0.962	0.942	0.908	0.925	9.368***	1.020	0.446
CHANCE	7	0.950	0.875	0.912	0.550	0.500	0.525	0.775	0.850	0.813	0.758	0.742	0.750	19.806***	0.102	0.790
END	14	0.975	0.975	0.975	0.950	0.925	0.938	0.925	0.925	0.925	0.950	0.942	0.946	1.041	0.080	0.080
FILL	3	0.950	0.900	0.925	0.175	0.175	0.175	0.950	0.950	0.950	0.692	0.675	0.683	174.144***	0.187	0.187
FREE	6	0.925	0.925	0.925	0.925	0.800	0.862	0.925	0.950	0.938	0.925	0.892	0.908	1.558	0.804	1.558
GAME	4	1.000	1.000	1.000	0.275	0.225	0.250	0.950	0.875	0.912	0.742	0.700	0.721	148.329***	1.148	0.322
GRAVE	13	1.000	0.900	0.950	0.300	0.500	0.400	0.875	0.675	0.775	0.725	0.692	0.708	42.051***	0.444	5.770**
LINE	8	1.000	0.950	0.975	0.925	0.875	0.900	0.950	0.900	0.925	0.958	0.908	0.933	1.876	2.412	0.000
LIVE	11	0.975	0.950	0.962	0.775	0.800	0.787	0.950	0.875	0.912	0.900	0.875	0.887	6.753**	0.390	0.519
MILL	17	0.900	0.950	0.925	0.400	0.200	0.300	0.900	0.925	0.912	0.733	0.692	0.712	85.730***	0.874	3.183*
NAME	19	1.000	1.000	1.000	0.975	0.900	0.938	0.975	0.900	0.938	0.983	0.933	0.958	2.664	3.836	0.959
PAGE	18	0.950	0.975	0.962	0.575	0.450	0.512	0.950	0.900	0.925	0.825	0.775	0.800	41.607***	1.251	0.938
PRIVATE	10	0.950	0.875	0.912	0.775	0.775	0.775	0.875	0.850	0.862	0.867	0.833	0.850	3.053*	0.525	0.230
SEASON	12	0.975	0.900	0.938	0.900	0.700	0.800	0.625	0.650	0.637	0.833	0.750	0.792	12.045***	2.782	1.697
SIGHT	20	0.925	0.900	0.912	0.600	0.550	0.575	0.975	0.875	0.925	0.833	0.775	0.804	23.637***	1.530	0.219
SKIRT	15	0.950	0.900	0.925	0.125	0.150	0.137	0.950	0.925	0.938	0.675	0.658	0.667	200.111***	0.198	0.347
STRANGER	5	0.950	0.950	0.950	0.500	0.375	0.438	0.875	0.875	0.875	0.775	0.733	0.754	44.925***	0.763	0.764
TAKE	1	0.975	0.875	0.925	0.275	0.125	0.200	1.000	0.925	0.962	0.750	0.642	0.696	168.905***	8.048**	0.333
TRAIN	16	0.925	0.850	0.887	0.900	0.700	0.800	0.850	0.825	0.837	0.892	0.792	0.842	1.173	4.566*	1.237
WISH	21	0.950	0.825	0.887	0.975	0.950	0.962	0.975	0.900	0.938	0.967	0.892	0.929	1.805	5.221*	0.774

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                TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)


                                        LEVEL 1, GRADE 6, ALL CASES

      BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
               THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
                 THE SECOND LINE GIVES BISERIALS R'S

                             WORDS IN HIGH MGF                 WORDS IN LOW MGF              WORDS IN ANOMALOUS USAGE
  WORD          ITEM FORM  A      V       E       H    FORM  A       V      E       H    FORM  A      V       E       H

 AGE              2    A 11.73 13.10 16.25 11.38     C 11.48 13.42 18.56 12.45     B 11.74 13.09 17.82 12.54
                        -0.094 0.576 0.909 0.723      -0.455 0.248 0.643 0.388        0.143 0.641 0.954 0.799
 BROKE            9    A 11.73 12.70 15.99 10.72     C 11.59 13.29 18.41 11.82     B 11.70 13.23 17.90 12.64
                        -0.143 0.588 1.330 0.590       0.017 0.194 0.550 0.091      -0.606 0.802 1.064 0.762
 CHANCE           7    B 11.68 13.38 17.97 12.70     A 11.86 13.50 16.69 11.05     C 11.54 13.94 18.51 12.32
                        -0.430 0.567 0.710 0.432       0.225 0.240 0.467 0.095      -0.229 0.564 0.622 0.344
 END             14    A 11.73 12.79 15.95 10.65     C 11.57 13.03 18.31 11.85     B 11.73 13.31 17.88 12.65
                        -0.158 0.652 0.446 0.143      -0.168 0.077 1.044 0.263      -0.072 0.550 0.542 0.438
 FILL             3    B 11.76 13.20 18.03 12.88     C 11.64 12.93 18.36 11.50     A 11.71 12.91 16.12 11.01
                         0.179 0.405 0.964 0.690       0.058-0.006 0.104-0.017      -0.354 0.575 0.939 0.613
 FREE             6    A 11.70 12.92 16.22 11.05     B 11.64 13.32 18.12 13.14     C 11.56 13.12 18.32 11.87
                        -0.324 0.422 0.948 0.478      -0.556 0.335 0.728 0.588      -0.325 0.215 1.079 0.281
 GAME             4    B 11.74 12.90 17.69 12.25     A 11.65 14.95 16.30 11.05     C 11.55 13.21 18.48 12.08
                        -9.999-9.999-9.999-9.999      -0.098 0.374 0.143 0.057      -0.352 0.257 1.128 0.421
 GRAVE           13    C 11.58 13.05 18.25 11.74     A 11.66 14.66 16.75 11.56     B 11.76 13.87 18.39 13.65
                        -0.122 0.139 1.080 0.136      -0.120 0.431 0.394 0.160       0.076 0.512 0.783 0.604
 LINE             8    C 11.58 13.04 18.14 11.69     B 11.71 13.22 18.00 12.88     A 11.72 13.03 16.15 11.09
                        -0.271 0.204 1.309 0.118      -0.213 0.338 0.695 0.537      -0.198 0.566 0.754 0.520
 LIVE            11    B 11.73 13.06 17.82 12.47     C 11.60 13.54 18.46 11.94     A 11.73 12.74 16.16 10.75
                        -0.171 0.396 0.667 0.429       0.066 0.297 0.514 0.132      -0.094 0.162 0.701 0.142
 MILL            17    C 11.58 13.19 18.20 11.74     B 11.63 14.79 18.67 14.17     A 11.70 12.97 16.21 11.21
                        -0.065 0.272 0.658 0.103      -0.138 0.333 0.366 0.277      -0.318 0.433 0.805 0.559
 NAME            19    B 11.74 12.90 17.69 12.25     A 11.73 12.69 16.19 10.96     C 11.56 13.08 18.37 11.87
                        -9.999-9.999-9.999-9.999      -0.045 0.144 1.008 0.442      -0.325 0.156 1.221 0.281
 PAGE            18    A 11.71 12.75 16.03 10.95     B 11.49 14.39 18.27 13.29     C 11.57 13.03 18.14 11.64
                        -0.389 0.365 0.718 0.657      -0.457 0.391 0.324 0.225      -0.202 0.066 0.505-0.016
 PRIVATE         10    B 11.71 13.37 17.95 12.74     C 11.50 13.56 18.60 12.68     A 11.65 13.01 16.20 11.12
                        -0.206 0.551 0.642 0.472      -0.350 0.295 0.612 0.449      -0.476 0.328 0.544 0.325
 SEASON          12    A 11.72 12.91 16.24 11.04     B 11.63 13.58 18.41 13.31     C 11.51 14.84 18.76 13.02
                        -0.190 0.474 1.187 0.540      -0.457 0.395 0.890 0.508      -0.204 0.617 0.502 0.394
 SIGHT           20    C 11.55 13.11 18.52 12.14     A 11.80 13.04 16.46 11.80     B 11.72 13.22 17.93 12.76
                        -0.352 0.150 1.210 0.474       0.140 0.132 0.368 0.284      -0.198 0.423 0.696 0.556
 SKIRT           15    C 11.55 13.32 18.41 12.31     A 11.82 11.09 15.91  9.45     B 11.71 13.11 17.87 12.69
                        -0.339 0.444 1.118 0.733       0.072-0.191 0.006-0.115      -0.335 0.323 0.594 0.568
 STRANGER         5    C 11.55 13.14 18.33 11.89     B 11.89 13.74 18.51 13.94     A 11.66 13.19 16.31 11.34
                        -0.498 0.304 1.332 0.383       0.234 0.191 0.398 0.315      -0.486 0.503 0.798 0.506
 TAKE             1    B 11.76 13.20 17.86 12.66     A 11.38 14.13 17.38 10.88     C 11.56 13.04 18.34 11.96
                         0.179 0.405 0.504 0.452      -0.368 0.220 0.468 0.032      -0.529 0.146 1.733 0.620
 TRAIN           16    C 11.55 13.14 18.46 12.10     B 11.72 13.16 18.17 13.14     A 11.69 13.09 16.22 11.01
                        -0.274 0.149 0.888 0.353      -0.076 0.149 0.600 0.426      -0.247 0.337 0.504 0.227
 WISH            21    A 11.76 13.07 16.10 11.14     C 11.57 13.01 18.23 11.73     B 11.76 13.13 17.91 12.69
                         0.152 0.442 0.432 0.403      -0.293 0.087 1.309 0.154       0.245 0.364 0.727 0.568

  MEANS BY FORM        A 11.74 12.60 15.89 10.60     B 11.74 12.90 17.69 12.25     C 11.59 12.97 17.91 11.65
  S.D.'S BY FORM         0.70  4.94  2.27  6.23        0.70  4.90  2.31  5.97        0.65  5.15  2.89  5.90
  N                      80.00                         80.00                         80.00
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TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 2, GRADE 6, ALL CASES

		-----WORDS IN HIGH MGF-----					------WORDS IN LOW MGF------						--WORDS IN ANOMALOUS USAGE--				
WORD	ITEM	FORM	1(R)	2(W)	N,I	TOT.	FORM	1(R)	2(W)	N,I	TOT.	Z(D(R))	FORM	1(W)	2(R)	N,I	TOT.
APPEAL	5	C	77	34	1	112	A	81	31	0	112	-0.59	B	33	79	0	112
			0.688	0.304	0.009			0.723	0.277	0.0				0.295	0.705	0.0	
BOTHER	13	A	98	14	0	112	B	53	59	0	112	6.41***	C	10	101	1	112
			0.875	0.125	0.0			0.473	0.527	0.0				0.089	0.902	0.009	
BUBBLE	16	C	96	16	0	112	A	83	29	0	112	2.17*	B	19	91	2	112
			0.857	0.143	0.0			0.741	0.259	0.0				0.170	0.813	0.018	
BUY	20	A	105	7	0	112	B	86	24	2	112	3.58***	C	12	100	0	112
			0.938	0.063	0.0			0.768	0.214	0.018				0.107	0.893	0.0	
CHANNEL	2	B	87	25	0	112	A	38	72	2	112	6.59***	C	19	93	0	112
			0.777	0.223	0.0			0.339	0.643	0.018				0.170	0.830	0.0	
DRUG	18	B	106	5	1	112	C	75	35	2	112	5.26***	A	8	103	1	112
			0.946	0.045	0.009			0.670	0.313	0.018				0.071	0.920	0.009	
HEDGE	12	A	104	7	1	112	C	44	68	0	112	8.47***	B	14	98	0	112
			0.929	0.063	0.009			0.393	0.607	0.0				0.125	0.875	0.0	
HUM	6	C	97	15	0	112	B	88	23	1	112	1.59	A	19	93	0	112
			0.866	0.134	0.0			0.786	0.205	0.009				0.170	0.830	0.0	
INCENSE	1	A	60	51	1	112	B	60	52	0	112	0.0	C	43	68	1	112
			0.536	0.455	0.009			0.536	0.464	0.0				0.384	0.607	0.009	
KNOT	3	B	85	26	1	112	C	91	21	0	112	-0.98	A	13	99	0	112
			0.759	0.232	0.009			0.813	0.188	0.0				0.116	0.884	0.0	
MOTOR	17	A	103	9	0	112	C	18	94	0	112	11.40***	B	14	96	2	112
			0.920	0.080	0.0			0.161	0.839	0.0				0.125	0.857	0.018	
PLANE	9	B	107	5	0	112	A	32	80	0	112	10.33***	C	16	96	0	112
			0.955	0.045	0.0			0.286	0.714	0.0				0.143	0.857	0.0	
POLL	14	B	60	51	1	112	C	24	88	0	112	4.97***	A	12	99	1	112
			0.536	0.455	0.009			0.214	0.786	0.0				0.107	0.884	0.009	
POLICE	19	C	103	8	1	112	B	49	62	1	112	7.73***	A	8	104	0	112
			0.920	0.071	0.009			0.438	0.554	0.009				0.071	0.929	0.0	
SCARE	7	C	87	25	0	112	A	82	30	0	112	0.78	B	14	98	0	112
			0.777	0.223	0.0			0.732	0.268	0.0				0.125	0.875	0.0	
SNAKE	11	C	107	4	1	112	B	38	74	0	112	9.65***	A	9	101	2	112
			0.955	0.036	0.009			0.339	0.661	0.0				0.080	0.902	0.018	
SPEAR	15	B	105	7	0	112	A	98	14	0	112	1.60	C	40	70	2	112
			0.938	0.063	0.0			0.875	0.125	0.0				0.357	0.625	0.018	
SWAMP	8	C	105	7	0	112	A	52	59	1	112	7.73***	B	31	81	0	112
			0.938	0.063	0.0			0.464	0.527	0.009				0.277	0.723	0.0	
TWINE	4	C	93	18	1	112	A	62	48	2	112	4.49***	B	22	90	0	112
			0.830	0.161	0.009			0.554	0.429	0.018				0.196	0.804	0.0	
WORRY	10	A	96	15	1	112	B	67	44	1	112	4.35***	C	15	97	0	112
			0.857	0.134	0.009			0.598	0.393	0.009				0.134	0.866	0.0	
YELL	21	B	99	13	0	112	C	87	25	0	112	2.14*	A	7	105	0	112
			0.884	0.116	0.0			0.777	0.223	0.0				0.063	0.938	0.0	
COLUMN SUMS			1980	362	10	2352		1308	1032	12	2352			378	1962	12	2352
			0.842	0.154	0.004			0.556	0.439	0.005				0.161	0.834	0.005	

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 2, GRADE 6, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS--EVALUATION ITEM SCORES

		E(HIGH)			E(LOW)			E(ANOM.)			ALL CASES			EVAL.	HEADL.	E*H
WORD	ITEM	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	F(2,330)	F(1,330)	F(2,330)
APPEAL	5	0.714	0.661	0.688	0.732	0.714	0.723	0.696	0.714	0.705	0.714	0.696	0.705	0.169	0.127	0.169
BOTHER	13	0.893	0.857	0.875	0.482	0.464	0.473	0.911	0.893	0.902	0.762	0.738	0.750	42.575***	0.314	0.020
BUBBLE	16	0.839	0.875	0.857	0.732	0.750	0.741	0.857	0.768	0.813	0.810	0.798	0.804	2.436	0.076	0.812
BUY	20	0.929	0.946	0.938	0.750	0.786	0.768	0.911	0.875	0.893	0.863	0.869	0.866	7.691***	0.026	0.344
CHANNEL	2	0.768	0.786	0.777	0.321	0.357	0.339	0.893	0.768	0.830	0.661	0.637	0.649	44.837***	0.263	1.199
DRUG	18	0.911	0.982	0.946	0.732	0.607	0.670	0.929	0.911	0.920	0.857	0.833	0.845	22.582***	0.412	2.343
HEDGE	12	0.964	0.893	0.929	0.536	0.250	0.393	0.839	0.911	0.875	0.780	0.685	0.732	73.423***	5.738*	6.813**
HUM	6	0.875	0.857	0.866	0.714	0.857	0.786	0.839	0.821	0.830	0.810	0.845	0.827	1.274	0.752	1.691
INCENSE	1	0.589	0.482	0.536	0.482	0.589	0.536	0.589	0.625	0.607	0.554	0.565	0.560	0.769	0.048	1.346
KNOT	3	0.679	0.839	0.759	0.875	0.750	0.813	0.911	0.857	0.884	0.821	0.815	0.818	3.041*	0.021	4.273*
MOTOR	17	0.946	0.893	0.920	0.161	0.161	0.161	0.839	0.875	0.857	0.649	0.643	0.646	177.376***	0.027	0.505
PLANE	9	0.982	0.929	0.955	0.250	0.321	0.286	0.804	0.911	0.857	0.679	0.720	0.699	118.449***	1.180	1.613
POLL	14	0.571	0.500	0.536	0.179	0.250	0.214	0.946	0.821	0.884	0.565	0.524	0.545	72.120***	0.837	1.657
POLICE	19	0.946	0.893	0.920	0.446	0.429	0.438	0.946	0.911	0.929	0.780	0.744	0.762	67.635***	0.820	0.068
SCARF	7	0.786	0.768	0.777	0.696	0.768	0.732	0.893	0.857	0.875	0.792	0.798	0.795	3.694*	0.018	0.570
SNAKE	11	0.946	0.964	0.955	0.232	0.446	0.339	0.929	0.875	0.902	0.702	0.762	0.732	112.019***	2.556	4.626*
SPEAR	15	0.911	0.964	0.938	0.875	0.875	0.875	0.625	0.625	0.625	0.804	0.821	0.813	22.467***	0.196	0.197
SWAMP	8	0.911	0.964	0.938	0.536	0.393	0.464	0.732	0.714	0.723	0.726	0.690	0.708	36.941***	0.629	1.626
TWINE	4	0.768	0.893	0.830	0.571	0.536	0.554	0.750	0.857	0.804	0.696	0.762	0.729	14.275***	1.970	1.188
WORRY	10	0.929	0.786	0.857	0.571	0.625	0.598	0.857	0.875	0.866	0.786	0.762	0.774	16.151***	0.297	1.910
YELL	21	0.857	0.911	0.884	0.875	0.679	0.777	0.964	0.911	0.938	0.899	0.833	0.866	6.831**	3.280	4.012*

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                   TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)


                                       LEVEL 2, GRADE 6, ALL CASES

    BISERIAL CORRELATICNS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
             THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
               THE SECOND LINE GIVES BISERIALS R'S

                              WORDS IN HIGH MGF             WORDS IN LOW MGF           WORDS IN ANOMALOUS USAGE
   WORD        ITEM FORM  A       V      E      H     FORM  A      V      E      H    FORM  A      V      E      H

 APPEAL          5     C 11.57 12.73 15.88  9.51     A 11.60 13.70 16.64  9.01     B 11.68 13.09 16.16  8.97
                          -0.051 0.104 0.332-0.126     -0.166 0.169 0.478 0.060      -0.181 0.462 0.619 0.411
 BOTHER         13     A 11.60 13.65 16.50  9.54     B 11.81 11.53 15.91  7.98     C 11.54 13.09 15.87  9.53
                          -0.347 0.288 0.713 0.543      0.128-0.101 0.241 0.004      -0.345 0.637 0.866 0.652
 BUBBLE         16     C 11.53 13.17 15.67  9.39     A 11.61 13.45 16.48  8.70     B 11.69 12.27 15.73  8.49
                          -0.326 0.520 0.333 0.370     -0.140 0.058 0.369-0.073      -0.226 0.192 0.463 0.318
 BUY            20     A 11.63 13.60 16.36  9.36     B 11.66 12.24 15.63  8.22     C 11.54 13.11 15.80  9.30
                          -0.292 0.436 0.886 0.718     -0.302 0.145 0.238 0.128      -0.353 0.611 0.672 0.396
 CHANNEL         2     B 11.66 12.61 15.71  8.90     A 11.76 13.45 16.71  9.29     C 11.49 13.44 16.03  9.74
                          -0.343 0.339 0.331 0.482      0.170 0.024 0.229 0.074      -0.460 0.621 0.748 0.536
 DRUG           18     B 11.71 12.42 15.68  8.33     C 11.57 13.57 16.25  9.79     A 11.65 13.50 16.50  9.22
                          -0.448 0.815 0.998 0.634     -0.044 0.396 0.578 0.317      -0.013 0.232 1.048 0.418
 HEDGE          12     A 11.66 13.46 16.37  9.07     C 11.61 12.41 16.14  9.02     B 11.74 12.29 15.68  8.34
                           0.131 0.196 0.800 0.260      0.037-0.007 0.274 0.031       0.025 0.280 0.494 0.315
 HUM             6     C 11.55 12.74 15.84  9.23     B 11.73 12.65 15.90  8.59     A 11.59 13.78 16.78  9.60
                          -0.254 0.225 0.611 0.273     -0.057 0.371 0.536 0.336      -0.326 0.311 0.902 0.457
 INCENSE         1     A 11.57 14.37 16.73  9.98     B 11.83 11.23 15.40  7.05     C 11.53 12.88 16.06  9.47
                          -0.189 0.289 0.345 0.285      0.191-0.194 0.008-0.245      -0.140 0.131 0.376 0.179
 KNOT            3     B 11.68 12.73 16.00  8.95     C 11.60 13.11 16.04  9.16     A 11.66 13.39 16.46  9.26
                          -0.219 0.375 0.582 0.479      0.067 0.380 0.701 0.171       0.036 0.067 0.699 0.340
 MOTOR          17     A 11.64 13.70 16.48  9.27     C 11.94  8.50 14.44  4.94     B 11.70 13.06 15.91  8.80
                          -0.112 0.478 0.981 0.475      0.346-0.494-0.250-0.475      -0.251 0.837 0.768 0.632
 PLANE           9     B 11.74 12.12 15.45  7.93     A 11.69 12.53 16.00  8.25     C 11.55 13.07 15.88  9.77
                          -0.043 0.336 0.255-0.060      0.049-0.136-0.017-0.098      -0.209 0.452 0.636 0.640
 POLL           14     B 11.75 12.08 15.93  7.88     C 12.04 10.58 15.75  6.33     A 11.64 13.79 16.55  9.07
                           0.018 0.034 0.287-0.022      0.491-0.260 0.088-0.342      -0.115 0.432 0.836 0.175
 POLICE         19     C 11.55 12.99 15.76  9.35     B 11.80 11.92 15.61  7.45     A 11.65 13.57 16.28  9.15
                          -0.328 0.639 0.757 0.562      0.094-0.008 0.098-0.114       0.023 0.344 0.578 0.372
 SCARE           7     C 11.52 13.72 16.00 10.05     A 11.65 13.70 16.62  8.91     B 11.66 12.61 15.85  8.42
                          -0.277 0.632 0.561 0.571     -0.020 0.170 0.475 0.020      -0.507 0.556 0.762 0.384
 SNAKE          11     C 11.61 12.57 15.58  9.04     B 11.79 11.92 16.26  8.66     A 11.64 13.54 16.55  9.34
                           0.274 0.239 0.553 0.338      0.069-0.006 0.316 0.128      -0.070 0.238 0.981 0.464
 SPEAR          15     B 11.71 12.49 15.67  8.45     A 11.66 13.56 16.31  9.37     C 11.57 13.60 16.43 10.30
                          -0.314 0.808 0.838 0.736      0.080 0.209 0.403 0.403      -0.044 0.362 0.627 0.439
 SWAMP           8     C 11.56 12.75 15.65  9.10     A 11.63 13.96 17.15  9.44     B 11.70 12.74 16.00  8.69
                          -0.310 0.445 0.616 0.336     -0.033 0.153 0.484 0.128      -0.124 0.338 0.516 0.313
 TWINE           4     C 11.52 13.19 15.76  9.33     A 11.66 12.73 16.11  8.11     B 11.71 12.60 15.86  8.67
                          -0.355 0.466 0.410 0.289      0.022-0.171 0.031-0.200      -0.133 0.372 0.530 0.405
 WORRY          10     A 11.61 13.93 16.52  9.45     B 11.58 12.82 16.33  8.90     C 11.53 13.15 15.84  9.77
                          -0.232 0.471 0.666 0.418     -0.378 0.267 0.567 0.287      -0.377 0.540 0.611 0.678
 YELL           21     B 11.67 12.49 15.84  8.74     C 11.55 12.97 16.05  9.41     A 11.63 13.70 16.41  9.13
                          -0.516 0.486 0.797 0.696     -0.145 0.257 0.606 0.267      -0.292 0.600 1.023 0.387

   MEANS BY FORM       A 11.65 13.32 16.05  8.37     B 11.74 11.96 15.38  7.96     C 11.59 12.45 15.44  8.86
   S.D.'S BY FORM         0.61  4.88  2.66  5.28        0.65  5.02  2.58  5.02        0.68  5.26  2.61  5.41
   N                     112.00                       112.00                       112.00
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TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 2, GRADE 9, ALL CASES

		-----WORDS IN HIGH MGF-----					------WORDS IN LOW MGF------						--WORDS IN ANOMALOUS USAGE--				
WORD	ITEM	FORM	1(R)	2(W)	N,I	TCT.	FORM	1(R)	2(W)	N,I	TOT.	Z(D(R))	FORM	1(W)	2(R)	N,I	TOT.
APPEAL	5	C	66	23	1	90	A	78	12	0	90	-2.24*	B	15	74	1	90
			0.733	0.256	0.011			0.867	0.133	0.0				0.167	0.822	0.011	
BOTHER	13	A	80	10	0	90	B	38	52	0	90	6.59***	C	4	85	1	90
			0.889	0.111	0.0			0.422	0.578	0.0				0.044	0.944	0.011	
BUBBLE	16	C	82	7	1	90	A	77	12	1	90	1.16	B	24	65	1	90
			0.911	0.078	0.011			0.856	0.133	0.011				0.267	0.722	0.011	
BUY	20	A	87	3	0	90	B	79	11	0	90	2.23*	C	5	84	1	90
			0.967	0.033	0.0			0.878	0.122	0.0				0.056	0.933	0.011	
CHANNEL	2	B	82	8	0	90	A	48	42	0	90	5.66***	C	18	71	1	90
			0.911	0.089	0.0			0.533	0.467	0.0				0.200	0.789	0.011	
DRUG	18	B	90	0	0	90	C	78	11	1	90	3.59***	A	4	86	0	90
			1.000	0.0	0.0			0.867	0.122	0.011				0.044	0.956	0.0	
HEDGE	12	A	79	11	0	90	C	36	52	2	90	6.67***	B	11	78	1	90
			0.878	0.122	0.0			0.400	0.578	0.022				0.122	0.867	0.011	
HUM	6	C	84	6	0	90	B	77	12	1	90	1.70	A	12	78	0	90
			0.933	0.067	0.0			0.856	0.133	0.011				0.133	0.867	0.0	
INCENSE	1	A	74	16	0	90	B	29	58	3	90	6.78***	C	31	58	1	90
			0.822	0.178	0.0			0.322	0.644	0.033				0.344	0.644	0.011	
KNOT	3	B	72	17	1	90	C	70	19	1	90	0.37	A	6	84	0	90
			0.800	0.189	0.011			0.778	0.211	0.011				0.067	0.933	0.0	
MOTOR	17	A	85	5	0	90	C	29	60	1	90	8.66***	B	9	81	0	90
			0.944	0.056	0.0			0.322	0.667	0.011				0.100	0.900	0.0	
PLANE	9	B	87	3	0	90	A	49	41	0	90	6.59***	C	15	74	1	90
			0.967	0.033	0.0			0.544	0.456	0.0				0.167	0.822	0.011	
POLL	14	B	80	10	0	90	C	33	56	1	90	7.25***	A	14	76	0	90
			0.889	0.111	0.0			0.367	0.622	0.011				0.156	0.844	0.0	
POLICE	19	C	90	0	0	90	B	71	19	0	90	4.61***	A	6	84	0	90
			1.000	0.0	0.0			0.789	0.211	0.0				0.067	0.933	0.0	
SCARE	7	C	80	10	0	90	A	72	17	1	90	1.65	B	8	82	0	90
			0.889	0.111	0.0			0.800	0.189	0.011				0.089	0.911	0.0	
SNAKE	11	C	86	1	3	90	B	50	40	0	90	6.24***	A	7	83	0	90
			0.956	0.011	0.033			0.556	0.444	0.0				0.078	0.922	0.0	
SPEAR	15	B	89	1	0	90	A	77	13	0	90	3.34***	C	20	70	0	90
			0.989	0.011	0.0			0.856	0.144	0.0				0.222	0.778	0.0	
SWAMP	8	C	88	2	0	90	A	62	28	0	90	5.20***	B	28	62	0	90
			0.978	0.022	0.0			0.689	0.311	0.0				0.311	0.689	0.0	
TWINE	4	C	82	6	2	90	A	47	42	1	90	5.79***	B	11	78	1	90
			0.911	0.067	0.022			0.522	0.467	0.011				0.122	0.867	0.011	
WORRY	10	A	77	13	0	90	B	77	12	1	90	0.0	C	15	75	0	90
			0.856	0.144	0.0			0.856	0.133	0.011				0.167	0.833	0.0	
YELL	21	B	88	2	0	90	C	84	5	1	90	1.45	A	6	84	0	90
			0.978	0.022	0.0			0.933	0.056	0.011				0.067	0.933	0.0	
COLUMN SUMS			1728	154	8	1890		1261	614	15	1890			269	1612	9	1890
			0.914	0.081	0.004			0.667	0.325	0.008				0.142	0.853	0.005	

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 2, GRADE 9, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS--EVALUATION ITEM SCORES

WORD	ITEM	E(HIGH) H(H)	H(L)	M	E(LOW) H(H)	H(L)	M	E(ANOM.) H(H)	H(L)	M	ALL CASES H(H)	H(L)	M	EVAL. F(2,264)	HEADL. F(1,264)	E*H F(2,264)
APPEAL	5	0.778	0.689	0.733	0.911	0.822	0.867	0.778	0.867	0.822	0.822	0.793	0.807	2.696	0.385	1.540
BOTHER	13	0.911	0.867	0.889	0.489	0.356	0.422	0.956	0.933	0.944	0.785	0.719	0.752	55.668***	2.256	0.585
BUBBLE	16	0.889	0.933	0.911	0.867	0.844	0.856	0.711	0.733	0.722	0.822	0.837	0.830	6.151**	0.107	0.188
BUY	20	0.956	0.978	0.967	0.867	0.889	0.878	0.911	0.956	0.933	0.911	0.941	0.926	2.649	0.865	0.054
CHANNEL	2	0.889	0.933	0.911	0.444	0.622	0.533	0.822	0.756	0.789	0.719	0.770	0.744	20.148***	1.093	2.030
DRUG	18	1.000	1.000	1.000	0.844	0.889	0.867	0.933	0.978	0.956	0.926	0.956	0.941	7.748***	1.107	0.277
HEDGE	12	0.889	0.867	0.878	0.511	0.289	0.400	0.844	0.889	0.867	0.748	0.681	0.715	43.638***	1.956	2.826
HUM	6	0.933	0.933	0.933	0.911	0.800	0.856	0.844	0.889	0.867	0.896	0.874	0.885	1.569	0.328	1.423
INCENSE	1	0.844	0.800	0.822	0.311	0.333	0.322	0.689	0.600	0.644	0.615	0.578	0.596	28.690***	0.459	0.349
KNOT	3	0.800	0.800	0.800	0.778	0.778	0.778	0.933	0.933	0.933	0.837	0.837	0.837	4.730**	0.0	0.0
MOTOR	17	0.911	0.978	0.944	0.267	0.378	0.322	0.889	0.911	0.900	0.689	0.756	0.722	89.219***	2.468	0.366
PLANE	9	1.000	0.933	0.967	0.556	0.533	0.544	0.844	0.800	0.822	0.800	0.756	0.778	28.626***	0.921	0.077
POLL	14	0.822	0.956	0.889	0.356	0.378	0.367	0.844	0.844	0.844	0.674	0.726	0.700	48.343***	1.163	0.736
POLICE	19	1.000	1.000	1.000	0.867	0.711	0.789	0.889	0.978	0.933	0.919	0.896	0.907	13.928***	0.443	4.577*
SCARE	7	0.911	0.867	0.889	0.844	0.756	0.800	0.933	0.889	0.911	0.896	0.837	0.867	2.710	2.065	0.129
SNAKE	11	0.978	0.933	0.956	0.533	0.578	0.556	0.956	0.889	0.922	0.822	0.800	0.811	36.223***	0.272	0.636
SPEAR	15	1.000	0.978	0.989	0.867	0.844	0.856	0.711	0.844	0.778	0.859	0.889	0.874	9.941***	0.574	1.759
SWAMP	8	0.956	1.000	0.978	0.778	0.600	0.689	0.733	0.644	0.689	0.822	0.748	0.785	16.691***	2.469	1.877
TWINE	4	0.933	0.889	0.911	0.489	0.556	0.522	0.844	0.889	0.867	0.756	0.778	0.767	26.943***	0.220	0.514
WORRY	10	0.867	0.844	0.856	0.867	0.844	0.856	0.822	0.844	0.833	0.852	0.844	0.848	0.113	0.028	0.113
YELL	21	1.000	0.956	0.978	0.889	0.978	0.933	0.978	0.889	0.933	0.956	0.941	0.948	1.226	0.307	3.986*

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TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

                        LEVEL 2, GRADE 9, ALL CASES

BISERIAL CORRELATICNS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H) ;
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
          THE SECOND LINE GIVES BISERIALS R'S

                          WORDS IN HIGH MGF                WORDS IN LOW MGF            WORDS IN ANCMALOUS USAGE
WORD        ITEM FORM  A       V       E       H    FORM  A       V       E       H    FORM  A       V       E       H

APPEAL        5     C 14.53 18.26 17.15 11.71     A 14.74 18.65 17.65 12.22     B 14.59 19.30 17.50 13.62
                     -0.359 0.220 0.377 0.117      -0.073 0.346 0.383 0.521      -0.088 0.659 0.743 0.751
BOTHER       13     A 14.75 18.49 17.90 12.16     B 14.55 18.11 17.71 12.45     C 14.62 18.16 16.94 11.81
                     -0.040 0.225 0.900 0.561      -0.107-0.038 0.359-0.015      -0.129 0.657 0.728 0.591
BUBBLE       16     C 14.61 18.23 17.10 11.95     A 14.73 18.81 17.84 12.27     B 14.63 18.51 17.51 13.03
                     -0.209 0.527 0.838 0.535      -0.162 0.454 0.639 0.523       0.072 0.101 0.515 0.240
BUY          20     A 14.76 18.25 17.66 11.75     B 14.63 18.54 17.16 12.57     C 14.61 18.45 17.15 12.02
                      0.061-0.074 1.244 0.596       0.160 0.236 0.351 0.054      -0.296 1.035 1.233 0.774
CHANNEL       2     B 14.60 18.67 17.26 13.17     A 14.75 18.92 17.69 11.88     C 14.62 18.35 17.30 12.03
                     -0.130 0.456 0.699 0.802      -0.011 0.196 0.146 0.092      -0.058 0.328 0.616 0.294
DRUG         18     B 14.61 18.28 16.99 12.51     C 14.67 18.14 17.12 11.86     A 14.73 18.47 17.53 11.64
                     -9.999-9.999-9.999-9.999       0.209 0.291 0.622 0.314      -0.358 0.437 0.496 0.273
HEDGE        12     A 14.73 18.49 17.86 12.23     C 14.61 18.00 17.58 11.14     B 14.62 18.69 17.27 12.83
                     -0.141 0.214 0.764 0.568      -0.036 0.042 0.351-0.049       0.029 0.341 0.520 0.278
HUM           6     C 14.62 17.98 16.92 11.50     B 14.64 18.34 17.18 12.79     A 14.72 18.97 17.95 12.26
                     -0.161 0.253 0.554 0.112       0.161 0.046 0.334 0.227      -0.231 0.641 0.848 0.548
INCENSE       1     A 14.64 19.01 17.97 12.32     B 14.69 16.79 16.72 10.66     C 14.62 19.00 17.59 12.57
                     -0.580 0.531 0.695 0.468       0.120-0.273-0.110-0.358      -0.034 0.463 0.589 0.350
KNOT          3     B 14.60 19.58 17.57 13.64     C 14.64 18.64 17.46 12.37     A 14.73 18.54 17.65 11.77
                     -0.067 0.763 0.764 0.691       0.039 0.486 0.755 0.437      -0.324 0.427 0.692 0.366
MOTOR        17     A 14.75 18.39 17.48 11.61     C 14.83 18.10 17.10 11.24     B 14.59 18.52 17.26 12.70
                     -0.034 0.214 0.236 0.184       0.273 0.057 0.135-0.027      -0.161 0.253 0.640 0.212
PLANE         9     B 14.62 18.33 17.08 12.49     A 14.71 18.69 17.90 11.96     C 14.62 18.41 17.23 12.47
                      0.211 0.148 0.548-0.047      -0.087 0.131 0.263 0.115      -0.058 0.417 0.630 0.585
POLL         14     B 14.59 18.76 17.20 13.17     C 14.55 17.48 17.45 11.70     A 14.68 18.67 18.09 12.70
                     -0.188 0.466 0.457 0.668      -0.134-0.075 0.281 0.049      -0.384 0.318 0.944 0.758
POLICE       19     C 14.63 17.82 16.72 11.41     B 14.61 19.24 17.44 13.18     A 14.75 18.50 17.58 11.73
                     -9.999-9.999-9.999-9.999      -0.025 0.537 0.563 0.393      -0.061 0.368 0.489 0.305
SCARE         7     C 14.63 18.42 17.17 12.13     A 14.75 18.67 17.78 11.99     B 14.61 18.51 17.24 12.66
                     -0.061 0.642 0.836 0.585      -0.024 0.254 0.411 0.252      -0.013 0.272 0.667 0.179
SNAKE        11     C 14.63 18.08 16.88 11.50     B 14.60 18.60 17.64 13.40     A 14.76 18.37 17.83 11.90
                     -0.086 0.600 0.649 0.158      -0.026 0.093 0.422 0.268       0.034 0.139 1.047 0.468
SPEAR        15     B 14.62 18.34 17.06 12.54     A 14.68 18.73 17.91 12.26     C 14.60 18.60 17.20 12.44
                      0.391 0.409 1.045 0.204      -0.460 0.386 0.735 0.515      -0.136 0.461 0.491 0.470
SWAMP         8     C 14.64 17.95 16.82 11.51     A 14.66 18.95 18.02 12.66     B 14.61 18.97 17.56 13.15
                      0.086 0.549 0.690 0.320      -0.281 0.301 0.463 0.406       0.006 0.276 0.518 0.265
TWINE         4     C 14.63 18.09 16.99 11.76     A 14.74 17.87 17.77 11.94     B 14.63 18.72 17.29 12.90
                      0.007 0.339 0.593 0.341      -0.022-0.122 0.183 0.104       0.116 0.363 0.567 0.333
WORRY        10     A 14.71 18.71 17.91 12.06     B 14.60 18.42 17.25 12.88     C 14.59 18.36 17.23 12.23
                     -0.237 0.375 0.735 0.385      -0.087 0.106 0.447 0.300      -0.243 0.406 0.662 0.474
YELL         21     B 14.61 18.24 16.99 12.48     C 14.61 18.15 16.98 11.57     A 14.75 18.44 17.64 11.79
                      0.078-0.146-0.002-0.133      -0.296 0.546 0.724 0.203      -0.061 0.269 0.658 0.382

  MEANS BY FORM     A 14.76 18.28 17.41 11.49     B 14.61 18.28 16.99 12.51     C 14.63 17.82 16.72 11.41
  S.D.'S BY FORM       0.66  4.37  2.55  5.63        0.59  4.88  2.17  4.66        0.64  4.41  2.54  5.73
  N                   90.00                         90.00                         90.00
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TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 3, GRADE 6, ALL CASES

		-----WORDS IN HIGH MGF-----					------WORDS IN LOW MGF------						--WORDS IN ANOMALOUS USAGE--				
WORD	ITEM	FORM	1(R)	2(W)	N,I	TOT.	FORM	1(R)	2(W)	N,I	TOT.	Z(D(R))	FORM	1(W)	2(R)	N,I	TOT.
ANIMATE	4	C	89	19	0	108	B	60	47	1	108	4.27***	A	39	68	1	108
			0.824	0.176	0.0			0.556	0.435	0.009				0.361	0.630	0.009	
BLOUSE	15	A	58	50	0	108	C	36	69	3	108	3.02**	B	24	83	1	108
			0.537	0.463	0.0			0.333	0.639	0.028				0.222	0.769	0.009	
BUFFALO	14	A	100	8	0	108	B	30	78	0	108	9.73***	C	37	70	1	108
			0.926	0.074	0.0			0.278	0.722	0.0				0.343	0.648	0.009	
ECLIPSE	2	A	94	14	0	108	C	32	76	0	108	8.56***	B	35	73	0	108
			0.870	0.130	0.0			0.296	0.704	0.0				0.324	0.676	0.0	
EPIDEMIC	6	B	86	22	0	108	A	57	51	0	108	4.17***	C	30	75	3	108
			0.796	0.204	0.0			0.528	0.472	0.0				0.278	0.694	0.028	
HOIST	16	A	65	43	0	108	C	82	25	1	108	-2.48*	B	56	50	2	108
			0.602	0.398	0.0			0.759	0.231	0.009				0.519	0.463	0.019	
IMPRESS	17	B	93	15	0	108	A	60	48	0	108	4.94***	C	27	79	2	108
			0.861	0.139	0.0			0.556	0.444	0.0				0.250	0.731	0.019	
MELLOW	12	C	65	43	0	108	B	53	55	0	108	1.64	A	27	81	0	108
			0.602	0.398	0.0			0.491	0.509	0.0				0.250	0.750	0.0	
NIBBLE	20	C	92	15	1	108	A	79	29	0	108	2.18*	B	37	70	1	108
			0.852	0.139	0.009			0.731	0.269	0.0				0.343	0.648	0.009	
NOVEL	7	A	92	16	0	108	C	67	41	0	108	3.86***	B	35	73	0	108
			0.852	0.148	0.0			0.620	0.380	0.0				0.324	0.676	0.0	
OUTRAGE	19	A	75	33	0	108	C	78	29	1	108	-0.45	B	63	43	2	108
			0.694	0.306	0.0			0.722	0.269	0.009				0.583	0.398	0.019	
OVERTURN	9	C	90	17	1	108	B	84	24	0	108	1.03	A	40	67	1	108
			0.833	0.157	0.009			0.778	0.222	0.0				0.370	0.620	0.009	
PARROT	11	A	100	8	0	108	B	29	77	2	108	9.85***	C	28	80	0	108
			0.926	0.074	0.0			0.269	0.713	0.019				0.259	0.741	0.0	
PENSION	8	B	71	34	3	108	C	64	43	1	108	0.98	A	42	64	2	108
			0.657	0.315	0.028			0.593	0.398	0.009				0.389	0.593	0.019	
PLANK	1	C	98	10	0	108	B	47	61	0	108	7.29***	A	13	95	0	108
			0.907	0.093	0.0			0.435	0.565	0.0				0.120	0.880	0.0	
PRESSURE	18	C	83	22	3	108	A	67	41	0	108	2.36*	B	36	72	0	108
			0.769	0.204	0.028			0.620	0.380	0.0				0.333	0.667	0.0	
PRIMARY	21	C	81	26	1	108	B	59	48	1	108	3.13**	A	22	86	0	108
			0.750	0.241	0.009			0.546	0.444	0.009				0.204	0.796	0.0	
SLEIGH	3	B	83	25	0	108	A	52	56	0	108	4.36***	C	35	72	1	108
			0.769	0.231	0.0			0.481	0.519	0.0				0.324	0.667	0.009	
SPLINTER	10	B	98	9	1	108	A	46	62	0	108	7.51***	C	30	78	0	108
			0.907	0.083	0.009			0.426	0.574	0.0				0.278	0.722	0.0	
STRUCTURE	13	B	95	12	1	108	C	71	34	3	108	3.87***	A	49	58	1	108
			0.880	0.111	0.009			0.657	0.315	0.028				0.454	0.537	0.009	
TARRY	5	B	54	53	1	108	A	59	45	4	108	-0.68	C	33	74	1	108
			0.500	0.491	0.009			0.546	0.417	0.037				0.306	0.685	0.009	
COLUMN SUMS			1762	494	12	2268		1212	1039	17	2268			738	1511	19	2268
			0.777	0.218	0.005			0.534	0.458	0.007				0.325	0.666	0.008	

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 3, GRADE 6, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS--EVALUATION ITEM SCORES

		E(HIGH)			E(LOW)			E(ANOM.)			ALL CASES			EVAL.	HEADL.	E*H
WORD	ITEM	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	H(H)	H(L)	M	F(2,318)	F(1,318)	F(2,318)
ANIMATE	4	0.796	0.852	0.824	0.481	0.630	0.556	0.611	0.648	0.630	0.630	0.710	0.670	9.889***	2.483	0.455
BLOUSE	15	0.574	0.500	0.537	0.444	0.222	0.333	0.778	0.759	0.769	0.599	0.494	0.546	23.745***	4.136*	1.388
BUFFALO	14	0.889	0.963	0.926	0.241	0.315	0.278	0.611	0.685	0.648	0.580	0.654	0.617	68.185***	2.654	0.0
ECLIPSE	2	0.889	0.852	0.870	0.315	0.278	0.296	0.667	0.685	0.676	0.623	0.605	0.614	50.238***	0.152	0.152
EPIDEMIC	6	0.833	0.759	0.796	0.444	0.611	0.528	0.722	0.667	0.694	0.667	0.679	0.673	9.509***	0.059	2.322
HOIST	16	0.481	0.722	0.602	0.722	0.796	0.759	0.463	0.463	0.463	0.556	0.660	0.608	10.667***	4.009*	1.845
IMPRESS	17	0.889	0.833	0.861	0.574	0.537	0.556	0.722	0.741	0.731	0.728	0.704	0.716	13.315***	0.259	0.210
MELLOW	12	0.574	0.630	0.602	0.611	0.370	0.491	0.778	0.722	0.750	0.654	0.574	0.614	8.139***	2.323	2.695
NIBBLE	20	0.907	0.796	0.852	0.759	0.704	0.731	0.611	0.685	0.648	0.759	0.728	0.744	6.115**	0.416	1.316
NOVEL	7	0.852	0.852	0.852	0.648	0.593	0.620	0.741	0.611	0.676	0.747	0.685	0.716	8.065***	1.578	0.584
OUTRAGE	19	0.704	0.685	0.694	0.685	0.759	0.722	0.426	0.370	0.398	0.605	0.605	0.605	15.780***	0.0	0.545
OVERTURN	9	0.852	0.815	0.833	0.759	0.796	0.778	0.574	0.667	0.620	0.728	0.759	0.744	7.128***	0.417	0.618
PARROT	11	0.944	0.907	0.926	0.185	0.352	0.269	0.796	0.685	0.741	0.642	0.648	0.645	81.809***	0.020	3.682*
PENSION	8	0.667	0.648	0.657	0.556	0.630	0.593	0.556	0.630	0.593	0.593	0.636	0.614	0.631	0.631	0.322
PLANK	1	0.963	0.852	0.907	0.593	0.278	0.435	0.870	0.889	0.880	0.809	0.673	0.741	54.761***	10.787**	5.505**
PRESSURE	18	0.778	0.759	0.769	0.611	0.630	0.620	0.722	0.611	0.667	0.704	0.667	0.685	2.889	0.517	0.560
PRIMARY	21	0.796	0.704	0.750	0.519	0.574	0.546	0.815	0.778	0.796	0.710	0.685	0.698	9.465***	0.245	0.749
SLEIGH	3	0.722	0.815	0.769	0.463	0.500	0.481	0.630	0.704	0.667	0.605	0.673	0.639	10.426***	1.702	0.099
SPLINTER	10	0.926	0.889	0.907	0.463	0.389	0.426	0.630	0.815	0.722	0.673	0.698	0.685	36.151***	0.280	3.013
STRUCTURE	13	0.870	0.889	0.880	0.500	0.815	0.657	0.463	0.611	0.537	0.611	0.772	0.691	17.485***	11.182***	3.193*
TARRY	5	0.500	0.500	0.500	0.611	0.481	0.546	0.741	0.630	0.685	0.617	0.537	0.577	4.182*	2.175	0.553

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TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

                              LEVEL 3, GRADE 6, ALL CASES

BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
          THE SECOND LINE GIVES BISERIALS R'S

                           WORDS IN HIGH MGF               WORDS IN LOW MGF           WORDS IN ANCMALOUS USAGE
   WORD       ITEM FORM  A       V       E      H    FORM  A       V       E      H    FORM  A       V       E      H

 ANIMATE        4     C 11.81 12.74 15.18  6.74     B 11.58 13.32 13.57  6.65     A 11.69 13.47 15.25  7.29
                        -0.111 0.532 0.846 0.480      -0.043 0.093 0.240 0.087      -0.C81 0.493 0.650 0.354
 BLOUSE        15     A 11.78 12.26 14.81  6.95     C 11.81 12.17 14.86  6.44     B 11.55 14.11 13.78  7.42
                         0.114 0.104 0.325 0.174      -0.036 0.055 0.143 0.079      -0.198 0.547 0.600 0.584
 BUFFALO       14     A 11.70 12.24 14.35  6.62     B 11.60 14.07 14.30  6.90     C 11.81 11.93 15.06  6.31
                        -0.231 0.486 0.557 0.326      -0.003 0.173 0.330 0.097      -0.047 0.028 0.391 0.102
 ECLIPSE        2     A 11.74 12.41 14.62  6.78     C 11.91  9.91 14.25  4.[illegible]     B 11.56 13.92 13.82  7.18
                         0.145 0.433 0.720 0.359       0.089-0.309-0.046-0[illegible]5      -0.124 0.340 0.470 0.335
 EPIDEMIC       6     B 11.56 13.94 13.76  6.95     A 11.58 12.95 14.79  7.05     C 11.68 12.83 14.99  6.84
                        -0.202 0.521 0.645 0.361      -0.299 0.267 0.309 0.204      -0.434 0.362 0.395 0.342
 HOIST         16     A 11.63 13.14 15.28  7.25     C 11.89 12.40 14.88  6.65     B 11.54 14.10 14.18  7.52
                        -0.224 0.368 0.622 0.313       0.198 0.254 0.395 0.318      -0.119 0.251 0.422 0.295
 IMPRESS       17     B 11.58 13.76 13.54  6.96     A 11.88  9.53 13.38  4.77     C 11.86 12.65 15.20  6.82
                        -0.136 0.587 0.628 0.502       0.356-0.585-0.343-0.562       0.087 0.331 0.607 0.374
 MELLOW        12     C 11.78 12.60 15.31  6.88     B 11.60 14.26 13.85  7.34     A 11.65 13.11 14.73  7.42
                        -0.108 0.220 0.484 0.281       0.004 0.304 0.318 0.263      -0.252 0.545 0.502 0.573
 NIBBLE        20     C 11.79 12.45 14.95  6.51     A 11.65 12.52 14.80  6.77     B 11.47 14.37 14.04  7.61
                        -0.209 0.412 0.682 0.371      -0.267 0.275 0.523 0.191      -0.375 0.467 0.557 0.479
 NOVEL          7     A 11.73 12.30 14.66  6.79     C 11.90 12.43 15.12  6.01     B 11.53 14.15 14.07  7.62
                         0.035 0.313 0.700 0.336       0.145 0.179 0.400-0.011      -0.209 0.424 0.615 0.517
 OUTRAGE       19     A 11.75 12.36 14.81  7.07     C 11.86 11.97 15.03  6.26     B 11.63 14.00 14.72  7.79
                         0.076 0.189 0.478 0.312       0.079 0.053 0.459 0.098       0.044 0.203 0.547 0.323
 OVERTURN       9     C 11.86 11.89 14.69  6.03     B 11.61 13.54 13.51  6.92     A 11.61 13.72 15.27  7.61
                         0.106 0.029 0.323-0.009       0.023 0.281 0.401 0.314      -0.283 0.555 0.645 0.472
 PARROT        11     A 11.69 12.14 14.25  6.74     B 11.41 14.21 14.66  7.59     C 11.81 12.70 15.04  6.85
                        -0.335 0.367 0.333 0.518      -0.252 0.192 0.415 0.218      -0.068 0.364 0.496 0.399
 PENSION        8     B 11.56 14.07 13.86  7.42     C 11.66 12.70 15.41  6.63     A 11.69 12.55 15.00  6.78
                        -0.113 0.376 0.468 0.415      -0.386 0.244 0.525 0.192      -0.083 0.197 0.465 0.135
 PLANK          1     C 11.81 12.40 14.70  6.49     B 11.57 13.02 13.83  6.49     A 11.73 12.46 14.60  6.74
                        -0.213 0.565 0.560 0.527      -0.050 0.010 0.279 0.029       0.028 0.499 0.741 0.340
 PRESSURE      18     C 11.83 13.25 15.16  6.90     A 11.73 12.07 14.40  6.81     B 11.54 13.63 14.01  6.96
                        -0.007 0.661 0.650 0.469       0.023 0.071 0.167 0.154      -0.182 0.229 0.568 0.238
 PRIMARY       21     C 11.78 12.69 14.77  6.73     B 11.66 13.68 14.05  7.05     A 11.63 12.98 14.94  7.31
                        -0.187 0.372 0.291 0.350       0.134 0.186 0.443 0.207      -0.417 0.581 0.801 0.610
 SLEIGH         3     B 11.57 13.66 13.59  7.07     A 11.73 11.56 14.35  5.98     C 11.74 12.40 15.17  6.65
                        -0.148 0.332 0.449 0.390       0.016-0.060 0.100-0.128      -0.255 0.191 0.480 0.242
 SPLINTER      10     B 11.60 13.32 13.20  6.59     A 11.65 13.02 15.63  7.35     C 11.79 11.90 15.13  6.24
                         0.002 0.360 0.316 0.267      -0.120 0.233 0.564 0.245      -0.118 0.022 0.535 0.092
 STRUCTURE     13     B 11.60 13.59 13.56  6.84     C 11.80 11.65 14.66  6.01     A 11.67 13.24 14.98  7.22
                        -0.013 0.517 0.736 0.456      -0.078-0.065 0.157-0.013      -0.106 0.344 0.404 0.264
 TARRY          5     B 11.52 13.57 13.93  7.33     A 11.59 13.03 14.75  7.42     C 11.86 12.39 15.04  6.62
                        -0.172 0.144 0.354 0.266      -0.280 0.299 0.301 0.336       0.C87 0.197 0.421 0.241

   MEANS BY FORM      A 11.72 11.83 14.10  6.42     B 11.60 12.97 13.02  6.37     C 11.83 11.84 14.41  6.C5
   S.D.'S BY FORM        0.64  5.53  2.95  4.13        0.61  5.23  3.21  4.54        0.70  5.38  2.90  4.60
   N                    1C8.00                        108.00                        108.00
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TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 3, GRADE 9, ALL CASES

		-----WORDS IN HIGH MGF-----					------WORDS IN LOW MGF------						--WORDS IN ANOMALOUS USAGE--				
WORD	ITEM	FORM	1(R)	2(W)	N,I	TOT.	FORM	1(R)	2(W)	N,I	TOT.	Z(D(R))	FORM	1(W)	2(R)	N,I	TOT.
ANIMATE	4	C	88 0.936	6 0.064	0 0.0	94	B	52 0.553	41 0.436	1 0.011	94	6.02***	A	19 0.202	75 0.798	0 0.0	94
BLOUSE	15	A	68 0.723	26 0.277	0 0.0	94	C	35 0.372	59 0.628	0 0.0	94	4.84***	B	13 0.138	81 0.862	0 0.0	94
BUFFALO	14	A	89 0.947	5 0.053	0 0.0	94	B	40 0.426	52 0.553	2 0.021	94	7.70***	C	24 0.255	70 0.745	0 0.0	94
ECLIPSE	2	A	88 0.936	6 0.064	0 0.0	94	C	30 0.319	64 0.681	0 0.0	94	8.75***	B	24 0.255	70 0.745	0 0.0	94
EPIDEMIC	6	B	88 0.936	6 0.064	0 0.0	94	A	63 0.670	31 0.330	0 0.0	94	4.59***	C	23 0.245	71 0.755	0 0.0	94
HOIST	16	A	74 0.787	19 0.202	1 0.011	94	C	74 0.787	20 0.213	0 0.0	94	0.0	B	30 0.319	64 0.681	0 0.0	94
IMPRESS	17	B	88 0.936	6 0.064	0 0.0	94	A	28 0.298	66 0.702	0 0.0	94	9.00***	C	23 0.245	71 0.755	0 0.0	94
MELLOW	12	C	86 0.915	8 0.085	0 0.0	94	B	71 0.755	23 0.245	0 0.0	94	2.95**	A	14 0.149	80 0.851	0 0.0	94
NIBBLE	20	C	87 0.926	7 0.074	0 0.0	94	A	73 0.777	21 0.223	0 0.0	94	2.87**	B	11 0.117	83 0.883	0 0.0	94
NOVEL	7	A	89 0.947	5 0.053	0 0.0	94	C	66 0.702	28 0.298	0 0.0	94	4.41***	B	10 0.106	83 0.883	1 0.011	94
OUTRAGE	19	A	79 0.840	15 0.160	0 0.0	94	C	65 0.691	29 0.309	0 0.0	94	2.41*	B	52 0.553	42 0.447	0 0.0	94
OVERTURN	9	C	83 0.883	11 0.117	0 0.0	94	B	82 0.872	12 0.128	0 0.0	94	0.22	A	27 0.287	67 0.713	0 0.0	94
PARROT	11	A	89 0.947	5 0.053	0 0.0	94	B	28 0.298	66 0.702	0 0.0	94	9.18***	C	15 0.160	79 0.840	0 0.0	94
PENSION	8	B	86 0.915	8 0.085	0 0.0	94	C	63 0.670	31 0.330	0 0.0	94	4.14***	A	28 0.298	66 0.702	0 0.0	94
PLANK	1	C	90 0.957	4 0.043	0 0.0	94	B	48 0.511	46 0.489	0 0.0	94	6.93***	A	16 0.170	78 0.830	0 0.0	94
PRESSURE	18	C	89 0.947	4 0.043	1 0.011	94	A	86 0.915	8 0.085	0 0.0	94	0.86	B	36 0.383	58 0.617	0 0.0	94
PRIMARY	21	C	84 0.894	10 0.106	0 0.0	94	B	87 0.926	7 0.074	0 0.0	94	-0.76	A	15 0.160	79 0.840	0 0.0	94
SLEIGH	3	B	83 0.883	11 0.117	0 0.0	94	A	54 0.574	40 0.426	0 0.0	94	4.76***	C	23 0.245	71 0.755	0 0.0	94
SPLINTER	10	B	90 0.957	4 0.043	0 0.0	94	A	55 0.585	39 0.415	0 0.0	94	6.08***	C	24 0.255	70 0.745	0 0.0	94
STRUCTURE	13	B	85 0.904	8 0.085	1 0.011	94	C	61 0.649	33 0.351	0 0.0	94	4.20***	A	33 0.351	61 0.649	0 0.0	94
TARRY	5	B	67 0.713	27 0.287	0 0.0	94	A	56 0.596	38 0.404	0 0.0	94	1.69	C	25 0.266	69 0.734	0 0.0	94
COLUMN SUMS			1770 0.897	201 0.102	3 0.002	1974		1217 0.617	754 0.382	3 0.002	1974			485 0.246	1488 0.754	1 0.001	1974

TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)

LEVEL 3, GRADE 9, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS--EVALUATION ITEM SCORES

WORD	ITEM	E(HIGH) H(H)	H(L)	M	E(LOW) H(H)	H(L)	M	E(ANOM.) H(H)	H(L)	M	ALL CASES H(H)	H(L)	M	EVAL. F(2,276)	HEADL. F(1,276)	E*H F(2,276)
ANIMATE	4	0.915	0.957	0.936	0.596	0.511	0.553	0.766	0.830	0.798	0.759	0.766	0.762	22.328***	0.022	0.963
BLOUSE	15	0.702	0.745	0.723	0.489	0.255	0.372	0.936	0.787	0.862	0.709	0.596	0.652	32.938***	4.998*	2.597
BUFFALO	14	0.936	0.957	0.947	0.319	0.532	0.426	0.766	0.723	0.745	0.674	0.738	0.706	40.299***	1.783	2.575
ECLIPSE	2	0.936	0.936	0.936	0.234	0.404	0.319	0.809	0.681	0.745	0.660	0.674	0.667	60.389***	0.091	3.380*
EPIDEMIC	6	0.957	0.915	0.936	0.638	0.702	0.670	0.702	0.809	0.755	0.766	0.809	0.787	11.037***	0.813	0.880
HOIST	16	0.723	0.851	0.787	0.851	0.723	0.787	0.660	0.702	0.681	0.745	0.759	0.752	1.915	0.077	2.145
IMPRESS	17	0.894	0.979	0.936	0.319	0.277	0.298	0.809	0.702	0.755	0.674	0.652	0.663	66.586***	0.209	1.462
MELLOW	12	0.894	0.936	0.915	0.872	0.638	0.755	0.851	0.851	0.851	0.872	0.809	0.840	4.744**	2.247	4.078*
NIBBLE	20	0.915	0.936	0.926	0.766	0.787	0.777	0.872	0.894	0.883	0.851	0.872	0.862	4.702**	0.271	0.0
NOVEL	7	0.936	0.957	0.947	0.766	0.638	0.702	0.915	0.851	0.883	0.872	0.816	0.844	12.432***	1.863	1.077
OUTRAGE	19	0.830	0.851	0.840	0.681	0.702	0.691	0.404	0.489	0.447	0.638	0.681	0.660	18.396***	0.633	0.158
OVERTURN	9	0.872	0.894	0.883	0.894	0.851	0.872	0.681	0.745	0.713	0.816	0.830	0.823	6.005**	0.100	0.473
PARROT	11	0.915	0.979	0.947	0.234	0.362	0.298	0.872	0.809	0.840	0.674	0.716	0.695	86.277***	0.967	1.693
PENSION	8	0.936	0.894	0.915	0.660	0.681	0.670	0.702	0.702	0.702	0.766	0.759	0.762	9.623***	0.021	0.144
PLANK	1	0.936	0.979	0.957	0.553	0.468	0.511	0.851	0.809	0.830	0.780	0.752	0.766	34.063***	0.388	0.679
PRESSURE	18	0.979	0.915	0.947	0.894	0.936	0.915	0.574	0.660	0.617	0.816	0.837	0.826	25.277***	0.259	1.124
PRIMARY	21	0.915	0.872	0.894	0.872	0.979	0.926	0.809	0.872	0.840	0.865	0.908	0.887	1.737	1.276	1.382
SLEIGH	3	0.809	0.957	0.883	0.447	0.702	0.574	0.702	0.809	0.755	0.652	0.823	0.738	13.058***	11.808***	0.799
SPLINTER	10	0.957	0.957	0.957	0.574	0.596	0.585	0.766	0.723	0.745	0.766	0.759	0.762	20.359***	0.022	0.154
STRUCTURE	13	0.894	0.915	0.904	0.596	0.702	0.649	0.638	0.660	0.649	0.709	0.759	0.734	11.123***	0.946	0.309
TARRY	5	0.681	0.745	0.713	0.617	0.574	0.596	0.787	0.681	0.734	0.695	0.667	0.681	2.405	0.262	0.802

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          TABLE 5.4 DATA FROM MAIN STUDY: SENTENCE EVALUATION TEST (CONTINUED)


                                  LEVEL 3, GRADE 9, ALL CASES

BISERIAL CORRELATICNS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
          THE SECOND LINE GIVES BISERIALS R'S

                            WORDS IN HIGH MGF              WORDS IN LOW MGF           WORDS IN ANCMALOUS USAGE
 WORD        ITEM FORM  A      V      E     H     FORM  A      V     E     H     FORM  A      V      E     H

ANIMATE        4    C 14.48 18.64 16.34 10.70    B 14.65 18.31 15.94  9.92    A 14.49 18.88 16.88 10.73
                      -0.278 0.659 0.931 0.435      0.079-C.044 0.143 0.079     -0.426 0.695 0.953 0.688
BLOUSE        15    A 14.57 18.90 16.85 10.62    C 14.54 18.40 16.00 11.17    B 14.58 19.30 16.05 10.15
                      -0.041 0.540 0.708 0.475      0.069 0.039 0.007 0.156     -0.219 0.743 0.576 0.407
BUFFALO       14    A 14.56 17.84 16.07  9.60    B 14.50 19.07 16.85  9.72    C 14.53 18.57 16.63 10.81
                      -0.336 0.069 0.439 0.076     -0.194 0.153 0.530 0.015      0.108 0.173 0.515 0.189
ECLIPSE        2    A 14.56 18.19 16.24  9.93    C 14.37 18.17 16.30  9.70    B 14.60 18.91 16.36  9.99
                      -0.349 0.663 0.830 0.586     -0.194-0.006 0.098-0.142     -0.060 0.243 0.645 0.162
EPIDEMIC       6    B 14.60 18.67 15.94  9.88    A 14.60 18.10 16.37  9.78    C 14.42 18.86 16.96 11.04
                      -0.169 0.377 0.770 0.346      0.055 0.122 0.287 0.086     -0.303 0.319 0.805 0.315
HOIST         16    A 14.54 18.69 16.51 10.14    C 14.47 19.31 16.66 10.99    B 14.52 19.66 16.42 10.89
                      -0.198 0.547 0.562 0.325     -0.119 0.607 0.633 0.322     -0.296 0.517 0.584 0.502
IMPRESS       17    B 14.63 18.39 15.84  9.68    A 14.71 14.54 14.46  6.61    C 14.42 19.24 16.73 11.56
                       0.092-0.102 0.443 0.036      0.182-0.646-0.443-0.522     -0.303 0.504 0.620 0.585
MELLOW        12    C 14.50 18.29 16.40 10.53    B 14.68 18.69 16.10 10.07    A 14.51 18.22 16.41 10.13
                       0.0   0.105 0.839 0.125      0.217 0.131 0.405 0.211     -0.437 0.350 0.629 0.432
NIBBLE        20    C 14.46 18.44 16.17 10.77    A 14.60 18.21 16.38  9.89    B 14.60 18.94 15.99 10.12
                      -0.431 0.312 0.437 0.475      0.075 0.237 0.420 0.181     -0.100 0.496 0.546 0.443
NOVEL          7    A 14.56 18.08 16.12  9.80    C 14.52 18.50 16.61 11.08    B 14.59 19.13 16.06 10.35
                      -0.336 0.543 0.613 0.442      0.050 0.122 0.435 0.280     -0.183 0.691 0.684 0.663
OUTRAGE       19    A 14.51 18.43 16.53 10.42    C 14.48 19.31 16.83 11.18    B 14.40 19.50 16.81 10.60
                      -0.447 0.493 0.739 0.616     -0.074 0.439 0.573 0.318     -0.367 0.267 0.532 0.226
OVERTURN       9    C 14.48 18.90 16.51 11.04    B 14.61 18.60 15.89  9.68    A 14.58 18.39 16.57 10.10
                      -0.132 0.636 0.810 0.582     -0.046 0.141 0.334 0.021     -0.010 0.278 0.474 0.238
PARROT        11    A 14.56 18.02 16.13  9.76    B 14.46 17.93 16.43 10.04    C 14.47 18.33 16.51 10.76
                      -0.336 0.430 0.647 0.381     -0.201-0.100 0.266 0.069     -0.178 0.089 0.624 0.241
PENSION        8    B 14.58 18.65 15.93 10.10    C 14.56 17.81 16.57 10.32    A 14.55 19.14 16.98 10.91
                      -0.320 0.270 0.571 0.560      0.167-0.147 0.376-0.047     -0.132 0.617 0.758 0.567
PLANK          1    C 14.49 18.51 16.21 10.68    B 14.63 18.38 15.77  8.58    A 14.58 18.31 16.46 10.50
                      -0.191 0.660 0.841 0.552      0.016-0.021 0.037-0.295     -0.044 0.375 0.619 0.639
PRESSURE      18    C 14.47 18.46 16.17 10.62    A 14.58 18.16 16.20  9.70    B 14.64 18.60 16.24  9.93
                      -0.401 0.458 0.569 0.344     -0.036 0.478 0.565 0.175      0.052 0.057 0.371 0.094
PRIMARY       21    C 14.50 18.96 16.38 10.87    B 14.62 18.48 15.83  9.66    A 14.56 18.47 16.56 10.24
                       0.0   0.750 0.670 0.455      0.037 0.053 0.352-0.006     -0.160 0.523 0.770 0.490
SLEIGH         3    B 14.58 18.61 15.89  9.92    A 14.57 18.11 16.33  9.70    C 14.46 18.94 16.86 11.07
                      -0.266 0.169 0.362 0.246     -0.027 0.102 0.211 0.046     -0.138 0.360 0.724 0.329
SPLINTER      10    B 14.59 18.60 15.80  9.79    A 14.53 19.04 16.95 10.38    C 14.50 19.04 16.91 11.61
                      -0.455 0.363 0.440 0.293     -0.143 0.423 0.540 0.257      0.0   0.394 0.742 0.589
STRUCTURE     13    B 14.58 18.76 15.86  9.85    C 14.56 17.90 16.72 10.64    A 14.48 18.64 16.92 11.02
                      -0.330 0.380 0.355 0.213      0.163-0.106 0.445 0.077     -0.315 0.334 0.613 0.528
TARRY          5    B 14.60 18.90 16.31 10.37    A 14.61 17.70 16.39 10.14    C 14.46 18.38 16.32 10.43
                      -0.064 0.211 0.544 0.319      0.056-0.040 0.254 0.187     -0.132 0.079 0.260-0.001

  MEANS BY FORM     A 14.59 17.81 15.93  9.55    B 14.62 18.45 15.70  9.66    C 14.50 18.20 15.98 10.44
  S.D.'S BY FORM       0.61  4.36  2.83  4.85       0.65  4.46  2.35  4.67       0.61  4.95  2.92  4.63
  N                   94.00                        94.00                        94.00
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TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST

LEVEL 1, GRADE 3, ALL CASES

WORD	ITEM	FORM	-------WORDS IN HIGH MGF------- 1(R)	2(W)	3(?)	4(NR)	TOT.	FORM	-------WORDS IN LOW MGF-------- 1(R)	2(W)	3(?)	4(NR)	TOT.	Z(D(R))	Z(D(W))	Z(D(?))
AGE	17	A	119	18	14	56	207	B	18	47	29	113	207	10.55***	-3.92***	-2.42*
			0.575	0.087	0.068	0.271			0.087	0.227	0.140	0.546				
BROKE	6	B	41	98	48	20	207	A	116	31	28	32	207	-7.60***	7.11***	2.54*
			0.198	0.473	0.232	0.097			0.560	0.150	0.135	0.155				
CHANCE	1	A	74	18	91	24	207	B	22	67	82	36	207	6.06***	-5.96***	0.90
			0.357	0.087	0.440	0.116			0.106	0.324	0.396	0.174				
END	10	B	97	25	35	50	207	A	71	35	24	77	207	2.60**	-1.40	1.55
			0.469	0.121	0.169	0.242			0.343	0.169	0.116	0.372				
FILL	18	A	53	31	38	85	207	B	44	40	33	90	207	1.04	-1.17	0.65
			0.256	0.150	0.184	0.411			0.213	0.193	0.159	0.435				
FREE	21	A	69	16	43	79	207	B	88	27	22	70	207	-1.92	-1.77	2.84**
			0.333	0.077	0.208	0.382			0.425	0.130	0.106	0.338				
GAME	19	B	45	27	64	71	207	A	10	64	30	103	207	5.07***	-4.39***	3.99***
			0.217	0.130	0.309	0.343			0.048	0.309	0.145	0.498				
GRAVE	5	A	94	34	41	38	207	B	40	37	58	72	207	5.67***	-0.39	-1.96
			0.454	0.164	0.198	0.184			0.193	0.179	0.280	0.348				
LINE	11	A	41	40	35	91	207	B	14	62	50	81	207	3.91***	-2.51*	-1.83
			0.198	0.193	0.169	0.440			0.068	0.300	0.242	0.391				
LIVE	3	A	103	25	50	29	207	B	52	32	102	21	207	5.18***	-1.00	-5.30***
			0.498	0.121	0.242	0.140			0.251	0.155	0.493	0.101				
MILL	7	B	23	71	50	63	207	A	13	80	15	99	207	1.74	-0.92	4.73***
			0.111	0.343	0.242	0.304			0.063	0.386	0.072	0.478				
NAME	9	B	33	41	64	69	207	A	22	93	28	64	207	1.59	-5.46***	4.26***
			0.159	0.198	0.309	0.333			0.106	0.449	0.135	0.309				
PAGE	8	A	66	5	73	63	207	B	23	92	20	72	207	5.14***	-10.09***	6.24***
			0.319	0.024	0.353	0.304			0.111	0.444	0.097	0.348				
PRIVATE	2	B	34	49	84	40	207	A	30	49	49	79	207	0.54	0.0	3.68***
			0.164	0.237	0.406	0.193			0.145	0.237	0.237	0.382				
SEASON	4	B	30	17	118	42	207	A	86	48	28	45	207	-6.13***	-4.19***	9.26***
			0.145	0.082	0.570	0.203			0.415	0.232	0.135	0.217				
SIGHT	15	A	63	24	33	87	207	B	105	8	25	69	207	-4.20***	2.94**	1.13
			0.304	0.116	0.159	0.420			0.507	0.039	0.121	0.333				
SKIRT	12	A	64	57	30	56	207	B	1	68	32	106	207	8.51***	-1.18	-0.28
			0.309	0.275	0.145	0.271			0.005	0.329	0.155	0.512				
STRANGER	20	B	25	54	45	83	207	A	12	49	33	113	207	2.24*	0.57	1.51
			0.121	0.261	0.217	0.401			0.058	0.237	0.159	0.546				
TAKE	16	B	100	20	37	50	207	A	68	37	21	81	207	3.20**	-2.42*	2.27*
			0.483	0.097	0.179	0.242			0.329	0.179	0.101	0.391				
TRAIN	14	B	37	33	45	92	207	A	107	8	21	71	207	-7.22***	4.11***	3.22**
			0.179	0.159	0.217	0.444			0.517	0.039	0.101	0.343				
WISH	13	A	91	28	25	63	207	B	37	53	41	76	207	5.74***	-3.10**	-2.15*
			0.440	0.135	0.121	0.304			0.179	0.256	0.198	0.367				
COLUMN SUMS			1302	731	1063	1251	4347		979	1027	771	1570	4347			
			0.300	0.168	0.245	0.288			0.225	0.236	0.177	0.361				

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 1, GRADE 3, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS

		H(HIGH)				H(LOW)				ALL CASES				HEADL.	EVAL.	H*E
WORD	ITEM	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	F(1,408)	F(2,408)	F(2,408)
AGE	17	0.565	0.667	0.493	0.575	0.072	0.116	0.072	0.087	0.319	0.391	0.283	0.331	152.589***	2.618	0.912
BROKE	6	0.246	0.116	0.232	0.198	0.551	0.594	0.536	0.560	0.399	0.355	0.384	0.379	66.754***	0.332	1.709
CHANCE	1	0.319	0.362	0.391	0.357	0.087	0.101	0.130	0.106	0.203	0.232	0.261	0.232	35.799***	0.707	0.059
END	10	0.522	0.478	0.406	0.469	0.304	0.333	0.391	0.343	0.413	0.406	0.399	0.406	6.836**	0.030	1.527
FILL	18	0.246	0.246	0.275	0.256	0.217	0.261	0.159	0.213	0.232	0.254	0.217	0.234	1.083	0.254	0.843
FREE	21	0.333	0.333	0.333	0.333	0.362	0.449	0.464	0.425	0.348	0.391	0.399	0.379	3.699	0.441	0.441
GAME	19	0.217	0.203	0.232	0.217	0.043	0.058	0.043	0.048	0.130	0.130	0.138	0.133	27.010***	0.022	0.154
GRAVE	5	0.493	0.406	0.464	0.454	0.246	0.188	0.145	0.193	0.370	0.297	0.304	0.324	34.641***	1.081	0.463
LINE	11	0.188	0.246	0.159	0.198	0.014	0.116	0.072	0.068	0.101	0.181	0.116	0.133	15.858***	2.241	0.587
LIVE	3	0.464	0.493	0.536	0.498	0.232	0.304	0.217	0.251	0.348	0.399	0.377	0.374	28.417***	0.404	0.688
MILL	7	0.145	0.072	0.116	0.111	0.058	0.072	0.058	0.063	0.101	0.072	0.087	0.087	3.038	0.365	0.851
NAME	9	0.188	0.145	0.145	0.159	0.116	0.101	0.101	0.106	0.152	0.123	0.123	0.133	2.521	0.333	0.083
PAGE	8	0.290	0.319	0.348	0.319	0.043	0.116	0.174	0.111	0.167	0.217	0.261	0.215	28.166***	1.935	0.289
PRIVATE	2	0.116	0.217	0.159	0.164	0.087	0.275	0.072	0.145	0.101	0.246	0.116	0.155	0.304	6.906**	1.442
SEASON	4	0.130	0.130	0.174	0.145	0.420	0.391	0.435	0.415	0.275	0.261	0.304	0.280	40.790***	0.364	0.052
SIGHT	15	0.304	0.275	0.333	0.304	0.507	0.522	0.493	0.507	0.406	0.399	0.413	0.406	18.219***	0.031	0.279
SKIRT	12	0.290	0.348	0.290	0.309	0.014	0.0	0.0	0.005	0.152	0.174	0.145	0.157	86.838***	0.284	0.459
STRANGER	20	0.130	0.159	0.072	0.121	0.072	0.058	0.043	0.058	0.101	0.109	0.058	0.089	5.049*	1.285	0.568
TAKE	16	0.406	0.551	0.493	0.483	0.261	0.420	0.304	0.329	0.333	0.486	0.399	0.406	10.547**	3.430*	0.134
TRAIN	14	0.174	0.174	0.188	0.179	0.580	0.493	0.478	0.517	0.377	0.333	0.333	0.348	59.141***	0.435	0.628
WISH	13	0.449	0.406	0.464	0.440	0.188	0.174	0.174	0.179	0.319	0.290	0.319	0.309	35.371***	0.194	0.146

TABLE 5.5 DATA FRCM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 1, GRADE 3, ALL CASES

BISERIAL CORRELATICNS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
THE SECOND LINE GIVES BISERIALS R'S

			WORDS IN HIGH MGF					WORDS IN LOW MGF			
WORD	ITEM	FORM	A	V	E	H	FORM	A	V	E	H
AGE	17	A	8.61	8.03	15.65	9.13	B	8.61	10.22	17.50	10.50
			-0.032	0.486	0.496	0.752		-0.063	0.558	0.494	0.859
BROKE	6	B	8.63	8.17	15.54	7.22	A	8.60	7.90	15.50	9.17
			-0.056	0.338	0.229	0.514		-0.035	0.423	0.422	0.742
CHANCE	1	A	8.55	8.03	15.92	9.49	B	8.68	8.09	17.14	8.82
			-0.102	0.316	0.397	0.562		-0.004	0.263	0.458	0.655
END	10	B	8.66	7.91	15.45	6.79	A	8.54	8.75	16.20	10.99
			-0.047	0.478	0.351	0.723		-0.129	0.474	0.460	0.834
FILL	18	A	8.66	9.09	16.38	11.40	B	8.48	8.75	16.16	7.82
			0.056	0.473	0.432	0.778		-0.233	0.459	0.369	0.641
FREE	21	A	8.58	8.78	16.17	11.23	B	8.55	8.07	15.66	7.30
			-0.059	0.474	0.446	0.866		-0.233	0.486	0.389	0.805
GAME	19	B	8.62	8.40	15.84	8.71	A	8.40	8.70	16.10	10.60
			-0.072	0.395	0.305	0.815		-0.175	0.240	0.225	0.393
GRAVE	5	A	8.62	8.86	15.81	9.64	B	8.75	8.65	16.05	8.60
			-0.003	0.615	0.439	0.708		0.069	0.423	0.333	0.757
LINE	11	A	8.54	9.34	16.68	11.98	B	8.50	7.86	16.36	9.86
			-0.097	0.466	0.447	0.779		-0.147	0.204	0.292	0.724
LIVE	3	A	8.66	7.53	15.36	9.02	B	8.58	8.19	15.52	7.50
			0.087	0.259	0.321	0.612		-0.131	0.379	0.250	0.626
MILL	7	B	8.70	7.96	15.83	8.78	A	8.69	8.62	15.62	12.69
			0.009	0.246	0.239	0.658		0.063	0.243	0.168	0.635
NAME	9	B	8.70	8.15	16.18	9.12	A	8.55	8.55	16.68	11.05
			0.011	0.308	0.335	0.792		-0.070	0.266	0.364	0.525
PAGE	8	A	8.52	8.82	16.48	10.91	B	8.65	8.57	16.87	9.48
			-0.153	0.470	0.512	0.784		-0.030	0.339	0.418	0.762
PRIVATE	2	B	8.59	8.03	16.21	8.65	A	8.50	9.20	16.33	11.23
			-0.099	0.290	0.343	0.720		-0.125	0.394	0.337	0.600
SEASCN	4	B	8.67	8.33	16.20	8.40	A	8.57	8.79	15.86	9.67
			-0.019	0.329	0.328	0.651		-0.086	0.553	0.424	0.666
SIGHT	15	A	8.60	8.90	16.52	11.60	B	8.56	7.79	15.58	7.10
			-0.022	0.476	0.508	0.888		-0.241	0.477	0.427	0.879
SKIRT	12	A	8.52	8.58	16.09	10.20	B	9.00	9.00	13.00	8.00
			-0.150	0.409	0.407	0.643		0.177	0.255	-0.155	0.340
STRANGER	20	B	8.60	8.44	17.00	9.96	A	8.58	11.25	18.25	14.17
			-0.079	0.328	0.451	0.854		-0.029	0.566	0.536	0.775
TAKE	16	B	8.70	7.06	14.96	6.41	A	8.62	8.09	15.56	10.16
			0.026	0.222	0.186	0.625		-0.001	0.314	0.285	0.659
TRAIN	14	B	8.59	7.95	16.51	8.70	A	8.59	8.31	15.89	10.11
			-0.095	0.284	0.416	0.753		-0.064	0.518	0.526	0.927
WISH	13	A	8.60	8.32	15.95	10.41	B	8.57	8.03	16.19	9.22
			-0.026	0.448	0.470	0.864		-0.124	0.299	0.351	0.842
MEANS BY FORM		A	8.62	6.70	14.44	6.63	B	8.69	6.36	14.43	4.39
S.D.'S BY FORM			0.60	4.03	3.56	4.88		0.65	3.81	3.42	3.91
N			207.00					207.00			

TABLE 5.5 DATA FRCM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 1, GRADE 6, ALL CASES

WORD	ITEM	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	Z(D(R))	Z(D(W))	Z(D(?))
		-------WORDS IN HIGH MGF-------						-------WORDS IN LOW MGF--------								
AGE	17	A	93 0.775	9 0.075	10 0.083	8 0.067	120	B	58 0.483	19 0.158	20 0.167	23 0.192	120	4.68***	-2.01*	-1.95
BROKE	6	B	51 0.425	34 0.283	32 0.267	3 0.025	120	A	95 0.792	14 0.117	8 0.067	3 0.025	120	-5.82***	3.23**	4.16***
CHANCE	1	A	91 0.758	8 0.067	19 0.158	2 0.017	120	B	39 0.325	38 0.317	33 0.275	10 0.083	120	6.74***	-4.92***	-2.19*
END	10	B	86 0.717	9 0.075	21 0.175	4 0.033	120	A	100 0.833	5 0.042	10 0.083	5 0.042	120	-2.16*	1.10	2.12*
FILL	18	A	53 0.442	29 0.242	25 0.208	13 0.108	120	B	54 0.450	27 0.225	22 0.183	17 0.142	120	-0.13	0.31	0.49
FREE	21	A	90 C.750	5 0.C42	15 0.125	10 0.083	120	B	79 0.658	7 0.058	24 0.200	10 0.083	120	1.56	-0.59	-1.57
GAME	19	B	53 0.442	12 C.100	48 C.400	7 0.058	120	A	33 0.275	44 0.367	21 0.175	22 0.183	120	2.69**	-4.88***	3.85***
GRAVE	5	A	95 0.792	5 0.042	17 0.142	3 0.025	120	B	70 0.583	15 0.125	22 0.183	13 0.108	120	3.48***	-2.34*	-0.87
LINE	11	A	57 C.475	35 0.292	17 0.142	11 0.092	120	B	40 0.333	48 0.400	24 0.200	8 0.067	120	2.24*	-1.76	-1.20
LIVE	3	A	90 C.750	8 0.067	17 0.142	5 0.042	120	B	51 0.425	8 0.067	58 0.483	3 0.025	120	5.11***	0.0	-5.71***
MILL	7	B	45 0.375	30 C.250	40 0.333	5 0.042	120	A	37 0.308	65 0.542	9 0.075	9 0.075	120	1.09	-4.62***	4.96***
NAME	9	B	44 0.367	20 C.167	43 0.358	13 0.108	120	A	58 0.483	40 0.333	18 0.150	4 0.033	120	-1.83	-2.98**	3.71***
PAGE	8	A	85 0.708	1 0.008	29 0.242	5 0.042	120	B	38 0.317	60 0.500	13 0.108	9 0.075	120	6.07***	-8.75***	2.72**
PRIVATE	2	B	41 C.342	34 0.283	36 0.30C	9 0.075	120	A	75 0.625	13 0.108	25 0.208	7 0.058	120	-4.39***	3.42***	1.63
SEASON	4	B	47 0.392	7 C.058	57 0.475	9 0.075	120	A	99 0.825	5 0.042	12 0.100	4 0.033	120	-6.88***	0.59	6.42***
SIGHT	15	A	90 C.75C	8 0.067	12 0.100	10 0.083	120	B	94 0.783	2 0.017	17 0.142	7 0.058	120	-0.61	1.94	-0.99
SKIRT	12	A	63 0.525	36 C.300	15 0.125	6 0.050	120	B	7 0.058	74 0.617	15 0.125	24 0.200	120	7.95***	-4.92***	0.0
STRANGER	20	B	52 0.433	23 0.192	35 0.292	10 0.083	120	A	50 0.417	43 0.358	13 0.108	14 0.117	120	0.26	-2.89**	3.55***
TAKE	16	B	77 0.642	4 0.033	34 0.283	5 0.042	120	A	82 0.683	18 0.150	7 0.058	13 0.108	120	-0.68	-3.13**	4.63***
TRAIN	14	B	54 0.450	16 0.133	37 0.308	13 0.108	120	A	95 0.792	6 0.050	16 0.133	3 0.025	120	-5.45***	2.24*	3.27**
WISH	13	A	87 C.725	14 0.117	16 0.133	3 0.025	120	B	62 0.517	23 0.192	28 0.233	7 0.058	120	3.33***	-1.61	-2.00*
COLUMN SUMS			1444 0.573	347 0.138	575 0.228	154 0.061	2520		1316 0.522	574 0.228	415 0.165	215 0.085	2520			

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 1, GRADE 6, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS

		H(HIGH)				H(LOW)				ALL CASES				HEADL.	EVAL.	H*E
WORD	ITEM	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	F(1,234)	F(2,234)	F(2,234)
AGE	17	0.700	0.775	0.850	0.775	0.450	0.575	0.425	0.483	0.575	0.675	0.637	0.629	23.923***	0.957	1.309
BROKE	6	0.400	0.400	0.475	0.425	0.750	0.700	0.925	0.792	0.575	0.550	0.700	0.608	39.448***	2.527	0.571
CHANCE	1	0.800	0.650	0.825	0.758	0.225	0.450	0.300	0.325	0.512	0.550	0.563	0.542	56.636***	0.272	4.168*
END	10	0.675	0.725	0.750	0.717	0.725	0.850	0.925	0.833	0.700	0.787	0.837	0.775	4.766*	2.261	0.462
FILL	18	0.500	0.450	0.375	0.442	0.375	0.550	0.425	0.450	0.438	0.500	0.400	0.446	0.017	0.819	1.120
FREE	21	0.675	0.850	0.725	0.750	0.625	0.600	0.750	0.658	0.650	0.725	0.737	0.704	2.441	0.868	1.957
GAME	19	0.500	0.400	0.425	0.442	0.350	0.250	0.225	0.275	0.425	0.325	0.325	0.358	7.365**	1.178	0.074
GRAVE	5	0.850	0.675	0.850	0.792	0.550	0.625	0.575	0.583	0.700	0.650	0.712	0.688	12.689***	0.426	1.848
LINE	11	0.525	0.450	0.450	0.475	0.300	0.400	0.300	0.333	0.412	0.425	0.375	0.404	5.016*	0.226	0.642
LIVE	3	0.775	0.775	0.700	0.750	0.425	0.475	0.375	0.425	0.600	0.625	0.537	0.587	28.810***	0.739	0.057
MILL	7	0.225	0.500	0.400	0.375	0.300	0.450	0.175	0.308	0.262	0.475	0.287	0.342	1.232	4.986**	2.098
NAME	9	0.325	0.350	0.425	0.367	0.525	0.450	0.475	0.483	0.425	0.400	0.450	0.425	3.323	0.203	0.475
PAGE	8	0.650	0.775	0.700	0.708	0.275	0.375	0.300	0.317	0.462	0.575	0.500	0.512	42.883***	1.223	0.019
PRIVATE	2	0.425	0.325	0.275	0.342	0.675	0.650	0.550	0.625	0.550	0.487	0.412	0.483	20.757***	1.634	0.126
SEASON	4	0.400	0.400	0.375	0.392	0.775	0.850	0.850	0.825	0.587	0.625	0.612	0.608	57.626***	0.149	0.277
SIGHT	15	0.725	0.675	0.850	0.750	0.775	0.775	0.800	0.783	0.750	0.725	0.825	0.767	0.370	1.201	0.647
SKIRT	12	0.550	0.525	0.500	0.525	0.050	0.100	0.025	0.058	0.300	0.313	0.262	0.292	84.116***	0.349	0.188
STRANGER	20	0.575	0.425	0.300	0.433	0.425	0.425	0.400	0.417	0.500	0.425	0.350	0.425	0.068	1.844	1.298
TAKE	16	0.700	0.625	0.600	0.642	0.750	0.650	0.650	0.683	0.725	0.637	0.625	0.662	0.459	1.047	0.018
TRAIN	14	0.425	0.550	0.375	0.450	0.825	0.850	0.700	0.792	0.625	0.700	0.537	0.621	33.916***	2.562	0.262
WISH	13	0.600	0.775	0.800	0.725	0.500	0.550	0.500	0.517	0.550	0.662	0.650	0.621	11.525***	1.346	0.904

TABLE 5.5   DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 1, GRADE 6, ALL CASES

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BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
           THE SECOND LINE GIVES BISERIALS R'S

                              WORDS IN HIGH MGF                WORDS IN LOW MGF
       WORD      ITEM FORM  A      V      E      H     FORM  A      V      E      H

      AGE         17     A 11.61 14.25 18.03 15.65      B 11.53 14.62 17.97 13.76
                           -0.180 0.403 0.509 0.998       -0.306 0.620 0.498 0.875
      BROKE        6     B 11.61 13.92 17.94 13.49      A 11.63 14.15 17.81 14.89
                           -0.164 0.393 0.437 0.733       -0.113 0.378 0.248 0.696
      CHANCE       1     A 11.57 14.26 18.09 15.26      B 11.54 15.49 17.90 13.77
                           -0.324 0.387 0.544 0.773       -0.223 0.628 0.351 0.653
      END         10     B 11.71 13.58 17.43 11.88      A 11.62 14.24 17.92 15.00
                           -0.022 0.614 0.502 0.852       -0.196 0.515 0.475 0.903
      FILL        18     A 11.55 14.58 17.87 16.74      B 11.57 13.94 17.28 13.00
                           -0.191 0.247 0.132 0.651       -0.225 0.418 0.213 0.673
      FREE        21     A 11.63 14.32 18.02 15.76      B 11.61 13.66 17.97 12.73
                           -0.090 0.402 0.454 0.958       -0.271 0.550 0.743 0.981
      GAME        19     B 11.57 14.21 18.02 13.49      A 11.58 15.55 18.09 17.61
                           -0.234 0.474 0.479 0.756       -0.104 0.334 0.186 0.607
      GRAVE        5     A 11.65 14.48 18.04 15.65      B 11.63 13.69 17.74 12.77
                           -0.024 0.556 0.557 1.069       -0.183 0.467 0.506 0.827
      LINE        11     A 11.56 15.58 18.16 16.49      B 11.57 14.80 18.00 14.25
                           -0.177 0.491 0.308 0.642       -0.180 0.504 0.387 0.738
      LIVE         3     A 11.62 14.56 17.97 15.41      B 11.61 13.86 17.76 13.41
                           -0.131 0.508 0.390 0.813       -0.164 0.380 0.375 0.718
      MILL         7     B 11.64 15.04 17.36 14.00      A 11.59 15.95 18.59 17.49
                           -0.099 0.595 0.211 0.754       -0.086 0.422 0.411 0.627
      NAME         9     B 11.68 14.86 17.64 13.70      A 11.71 15.52 18.17 16.76
                           -0.047 0.549 0.296 0.694        0.090 0.485 0.321 0.710
      PAGE         8     A 11.69 15.09 18.04 15.94      B 11.58 14.68 18.26 14.13
                            0.113 0.658 0.410 0.907       -0.170 0.467 0.452 0.698
      PRIVATE      2     B 11.44 13.68 17.88 13.76      A 11.59 15.43 18.20 16.31
                           -0.359 0.290 0.356 0.671       -0.181 0.631 0.459 0.832
      SEASON       4     B 11.51 14.87 17.68 13.77      A 11.61 14.56 17.92 15.35
                           -0.291 0.576 0.325 0.737       -0.256 0.688 0.455 1.068
      SIGHT       15     A 11.61 14.62 17.94 15.79      B 11.70 13.05 17.19 11.22
                           -0.171 0.538 0.365 0.972       -0.054 0.474 0.426 0.774
      SKIRT       12     A 11.62 15.06 17.97 16.06      B 11.57 17.57 16.29 14.29
                           -0.079 0.412 0.219 0.608       -0.101 0.572-0.068 0.407
      STRANGER    20     B 11.60 14.15 17.85 13.98      A 11.54 15.88 18.36 17.26
                           -0.184 0.454 0.410 0.836       -0.194 0.501 0.380 0.721
      TAKE        16     B 11.65 13.66 17.69 12.35      A 11.60 14.87 18.06 15.70
                           -0.160 0.528 0.552 0.828       -0.179 0.528 0.405 0.759
      TRAIN       14     B 11.59 14.31 17.59 13.78      A 11.64 14.29 17.89 15.07
                           -0.196 0.507 0.330 0.824       -0.069 0.456 0.360 0.784
      WISH        13     A 11.63 14.46 18.09 15.85      B 11.61 14.48 18.02 13.61
                           -0.087 0.428 0.491 0.919       -0.187 0.625 0.554 0.903

        MEANS BY FORM    A 11.66 13.43 17.63 13.48      B 11.72 12.22 16.70  9.52
        S.D.'S BY FORM      0.65  5.21  2.07  5.59         0.72  4.70  3.08  5.88
        N                  120.00                        120.00
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TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 2, GRADE 6, ALL CASES

		-------WORDS IN HIGH MGF-------						-------WORDS IN LOW MGF--------							
WORD	ITEM	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	Z(D(R))	Z(D(W))	Z(D(?))
APPEAL	18	A	7	100	27	34	168	B	74	40	32	22	168	-8.55***	6.64***	-0.72
			0.042	0.595	0.161	0.202			0.440	0.238	0.190	0.131				
BOTHER	5	A	83	33	39	13	168	B	66	46	45	11	168	1.87	-1.67	-0.76
			0.494	0.196	0.232	0.077			0.393	0.274	0.268	0.065				
BUBBLE	21	B	59	30	61	18	168	A	117	1	28	22	168	-6.34***	5.47***	4.08***
			0.351	0.179	0.363	0.107			0.696	0.006	0.167	0.131				
BUY	12	A	41	78	41	8	168	B	129	7	23	9	168	-9.60***	8.91***	2.50*
			0.244	0.464	0.244	0.048			0.768	0.042	0.137	0.054				
CHANNEL	15	A	52	60	42	14	168	B	18	96	28	26	168	4.57***	-3.94***	1.88
			0.310	0.357	0.250	0.083			0.107	0.571	0.167	0.155				
DRUG	10	B	104	24	31	9	168	A	62	34	58	14	168	4.58***	-1.44	-3.34***
			0.619	0.143	0.185	0.054			0.369	0.202	0.345	0.083				
HEDGE	4	B	100	24	33	11	168	A	7	105	29	27	168	10.89***	-9.09***	0.56
			0.595	0.143	0.196	0.065			0.042	0.625	0.173	0.161				
HUM	19	B	107	24	22	15	168	A	97	20	31	20	168	1.12	0.65	-1.35
			0.637	0.143	0.131	0.089			0.577	0.119	0.185	0.119				
INCENSE	14	A	43	40	43	42	168	B	11	99	29	29	168	4.75***	-6.54***	1.86
			0.256	0.238	0.256	0.250			0.065	0.589	0.173	0.173				
KNOT	16	B	85	40	27	16	168	A	110	8	37	13	168	-2.76**	4.99***	-1.39
			0.506	0.238	0.161	0.095			0.655	0.048	0.220	0.077				
MOTOR	9	A	80	41	40	7	168	B	75	48	23	22	168	0.55	-0.87	2.38*
			0.476	0.244	0.238	0.042			0.446	0.286	0.137	0.131				
PLANE	8	A	88	17	50	13	168	B	19	114	20	15	168	8.08***	-10.85***	4.03***
			0.524	0.101	0.298	0.077			0.113	0.679	0.119	0.089				
POLL	6	A	16	56	55	41	168	B	20	95	25	28	168	-0.71	-4.28***	3.84***
			0.095	0.333	0.327	0.244			0.119	0.565	0.149	0.167				
POLICE	11	B	108	24	31	5	168	A	84	38	32	14	168	2.65**	-1.97*	-0.14
			0.643	0.143	0.185	0.030			0.500	0.226	0.190	0.083				
SCARE	1	B	137	7	22	2	168	A	45	46	66	11	168	10.07***	-5.84***	-5.46***
			0.815	0.042	0.131	0.012			0.268	0.274	0.393	0.065				
SNAKE	3	A	64	50	49	5	168	B	106	37	20	5	168	-4.58***	1.62	3.92***
			0.381	0.298	0.292	0.030			0.631	0.220	0.119	0.030				
SPEAR	20	A	33	87	32	16	168	B	43	86	24	15	168	-1.30	0.11	1.17
			0.196	0.518	0.190	0.095			0.256	0.512	0.143	0.089				
SWAMP	7	B	55	76	31	6	168	A	45	80	30	13	168	1.19	-0.44	0.14
			0.327	0.452	0.185	0.036			0.268	0.476	0.179	0.077				
TWINE	17	B	81	33	33	21	168	A	91	30	25	22	168	-1.09	0.42	1.15
			0.482	0.196	0.196	0.125			0.542	0.179	0.149	0.131				
WORRY	2	B	34	102	30	2	168	A	75	38	47	8	168	-4.78***	7.08***	-2.21*
			0.202	0.607	0.179	0.012			0.446	0.226	0.280	0.048				
YELL	13	B	115	17	26	10	168	A	91	25	40	12	168	2.69**	-1.32	-1.92
			0.685	0.101	0.155	0.060			0.542	0.149	0.238	0.071				
COLUMN SUMS			1492	963	765	308	3528		1385	1093	692	358	3528			
			0.423	0.273	0.217	0.087			0.393	0.310	0.196	0.101				

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 2, GRADE 6, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS

		H(HIGH)				H(LOW)				ALL CASES				HEADL.	EVAL.	H*E
WORD	ITEM	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	F(1,330)	F(2,330)	F(2,330)
APPEAL	18	0.054	0.071	0.0	0.042	0.446	0.429	0.446	0.440	0.250	0.250	0.223	0.241	91.953***	0.184	0.389
BOTHER	5	0.571	0.429	0.482	0.494	0.411	0.446	0.321	0.393	0.491	0.438	0.402	0.443	3.503	0.921	1.212
BUBBLE	21	0.393	0.286	0.375	0.351	0.625	0.750	0.714	0.696	0.509	0.518	0.545	0.524	45.281***	0.175	1.709
BUY	12	0.214	0.268	0.250	0.244	0.750	0.750	0.804	0.768	0.482	0.509	0.527	0.506	125.197***	0.307	0.210
CHANNEL	15	0.161	0.429	0.339	0.310	0.089	0.161	0.071	0.107	0.125	0.295	0.205	0.208	22.870***	5.362**	2.394
DRUG	10	0.589	0.696	0.571	0.619	0.286	0.339	0.482	0.369	0.438	0.518	0.527	0.494	22.479***	1.160	2.408
HEDGE	4	0.625	0.643	0.518	0.595	0.036	0.036	0.054	0.042	0.330	0.339	0.286	0.318	182.049***	0.653	1.200
HUM	19	0.679	0.643	0.589	0.637	0.643	0.518	0.571	0.577	0.661	0.580	0.580	0.607	1.240	1.005	0.385
INCENSE	14	0.304	0.143	0.321	0.256	0.054	0.054	0.089	0.065	0.179	0.098	0.205	0.161	24.444***	2.793	1.743
KNOT	16	0.446	0.589	0.482	0.506	0.589	0.679	0.696	0.655	0.518	0.634	0.589	0.580	7.772**	1.604	0.460
MOTOR	9	0.500	0.536	0.393	0.476	0.339	0.643	0.357	0.446	0.420	0.589	0.375	0.461	0.309	5.938**	2.086
PLANE	8	0.464	0.571	0.536	0.524	0.125	0.143	0.071	0.113	0.295	0.357	0.304	0.318	80.250***	0.725	0.657
POLL	6	0.107	0.036	0.143	0.095	0.107	0.125	0.125	0.119	0.107	0.080	0.134	0.107	0.495	0.835	0.959
POLICE	11	0.643	0.679	0.607	0.643	0.536	0.464	0.500	0.500	0.589	0.571	0.554	0.571	7.046**	0.147	0.440
SCARE	1	0.804	0.786	0.857	0.815	0.286	0.304	0.214	0.268	0.545	0.545	0.536	0.542	143.768***	0.017	1.138
SNAKE	3	0.429	0.321	0.393	0.381	0.589	0.661	0.643	0.631	0.509	0.491	0.518	0.506	22.141***	0.088	0.941
SPEAR	20	0.107	0.339	0.143	0.196	0.268	0.250	0.250	0.256	0.188	0.295	0.196	0.226	1.731	2.302	2.821
SWAMP	7	0.375	0.321	0.286	0.327	0.286	0.286	0.232	0.268	0.330	0.304	0.259	0.298	1.411	0.691	0.099
TWINE	17	0.536	0.464	0.446	0.482	0.446	0.643	0.536	0.542	0.491	0.554	0.491	0.512	1.193	0.585	2.088
WORRY	2	0.196	0.196	0.214	0.202	0.446	0.411	0.482	0.446	0.321	0.304	0.348	0.324	24.108***	0.272	0.100
YELL	13	0.696	0.750	0.607	0.685	0.482	0.500	0.643	0.542	0.589	0.625	0.625	0.613	7.392**	0.205	2.926

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               TABLE 5.5  DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

                              LEVEL 2, GRADE 6, ALL CASES

BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
          THE SECOND LINE GIVES BISERIALS R'S

                                 WORDS IN HIGH MGF               WORDS IN LOW MGF
      WORD       ITEM FORM  A      V     E     H    FORM  A      V     E     H

      APPEAL      18    A 11.29 17.29 17.57 15.43    B 11.51 15.49 16.66 12.53
                          -0.299 0.439 0.349 0.638     -0.191 0.614 0.453 0.756
      BOTHER       5    A 11.66 14.93 16.55 11.61    B 11.53 15.08 16.38 12.39
                          -0.065 0.607 0.420 0.830     -0.148 0.475 0.310 0.664
      BUBBLE      21    B 11.53 14.36 16.27 12.75    A 11.59 13.94 16.28 10.49
                          -0.145 0.301 0.250 0.683     -0.330 0.604 0.458 0.928
      BUY         12    A 11.63 15.02 16.37 12.68    B 11.55 13.87 16.11 11.02
                          -0.075 0.395 0.205 0.672     -0.288 0.546 0.516 0.932
      CHANNEL     15    A 11.60 15.62 16.87 12.42    B 11.39 14.22 16.78 13.33
                          -0.137 0.545 0.407 0.717     -0.210 0.168 0.260 0.488
      DRUG        10    B 11.54 14.04 16.06 11.77    A 11.55 14.84 16.89 12.53
                          -0.216 0.410 0.304 0.849     -0.225 0.463 0.462 0.819
      HEDGE        4    B 11.56 14.60 16.09 11.64    A 11.57 18.14 17.86 14.00
                          -0.153 0.565 0.305 0.762     -0.091 0.515 0.403 0.516
      HUM         19    B 11.52 13.72 16.07 11.36    A 11.63 14.61 16.48 11.43
                          -0.265 0.317 0.322 0.747     -0.155 0.634 0.459 0.940
      INCENSE     14    A 11.47 16.12 17.09 12.84    B 11.36 15.27 15.45 14.27
                          -0.286 0.569 0.441 0.710     -0.206 0.260-0.016 0.531
      KNOT        16    B 11.53 14.55 16.52 12.21    A 11.57 14.17 16.25 10.99
                          -0.186 0.454 0.449 0.777     -0.342 0.617 0.389 0.990
      MOTOR        9    A 11.54 15.19 16.56 12.31    B 11.60 14.96 16.27 12.29
                          -0.295 0.645 0.409 0.953     -0.043 0.498 0.297 0.711
      PLANE        8    A 11.59 14.73 16.60 11.52    B 11.58 14.95 16.53 13.11
                          -0.216 0.595 0.471 0.860     -0.042 0.259 0.210 0.468
      POLL         6    A 11.50 17.13 16.63 14.13    B 11.45 16.50 16.85 12.35
                          -0.172 0.510 0.207 0.634     -0.161 0.453 0.283 0.383
      POLICE      11    B 11.56 14.05 16.27 11.66    A 11.54 14.11 16.46 11.39
                          -0.159 0.437 0.454 0.861     -0.313 0.420 0.380 0.790
      SCARE        1    B 11.58 13.72 15.96 10.64    A 11.51 14.33 16.80 12.44
                          -0.192 0.568 0.467 0.896     -0.234 0.307 0.356 0.668
      SNAKE        3    A 11.58 15.50 16.88 12.42    B 11.54 14.36 16.31 11.33
                          -0.184 0.599 0.467 0.817     -0.224 0.532 0.466 0.725
      SPEAR       20    A 11.61 13.64 16.39 11.79    B 11.60 15.28 17.05 13.23
                          -0.099 0.174 0.195 0.497     -0.025 0.403 0.434 0.652
      SWAMP        7    B 11.47 15.58 16.89 13.02    A 11.58 13.67 16.20 11.27
                          -0.212 0.516 0.443 0.705     -0.150 0.204 0.160 0.494
      TWINE       17    B 11.48 14.93 16.49 12.28    A 11.57 14.77 16.93 11.65
                          -0.266 0.526 0.417 0.759     -0.265 0.628 0.670 0.924
      WORRY        2    B 11.47 14.29 15.53 11.41    A 11.53 15.15 16.85 12.20
                          -0.170 0.218-0.003 0.322     -0.286 0.601 0.518 0.877
      YELL        13    B 11.53 14.14 16.03 11.46    A 11.55 14.14 16.64 11.24
                          -0.279 0.526 0.338 0.886     -0.312 0.466 0.508 0.823

        MEANS BY FORM   A 11.70 12.34 15.71  7.92    B 11.63 12.81 15.54  9.20
        S.D.'S BY FORM     0.64  5.28  2.50  5.51       0.65  4.87  2.76  4.91
        N                168.00                       168.00
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TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 2, GRADE 9, ALL CASES

			-------WORDS IN HIGH MGF-------						-------WORDS IN LOW MGF--------							
WORD	ITEM	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	Z(D(R))	Z(D(W))	Z(D(?))
APPEAL	18	A	40	67	13	15	135	B	91	11	19	14	135	-6.21***	7.52***	-1.13
			0.296	0.496	0.096	0.111			0.674	0.081	0.141	0.104				
BOTHER	5	A	98	20	12	5	135	B	77	28	20	10	135	2.68**	-1.27	-1.51
			0.726	0.148	0.089	0.037			0.570	0.207	0.148	0.074				
BUBBLE	21	B	42	15	57	21	135	A	112	4	10	9	135	-8.61***	2.62**	6.62***
			0.311	0.111	0.422	0.156			0.830	0.030	0.074	0.067				
BUY	12	A	71	44	13	7	135	B	112	3	14	6	135	-5.34***	6.58***	-0.20
			0.526	0.326	0.096	0.052			0.830	0.022	0.104	0.044				
CHANNEL	15	A	64	42	19	10	135	B	41	63	14	17	135	2.87**	-2.62**	0.93
			0.474	0.311	0.141	0.074			0.304	0.467	0.104	0.126				
DRUG	10	B	81	27	19	8	135	A	68	33	21	13	135	1.59	-0.88	-0.34
			0.600	0.200	0.141	0.059			0.504	0.244	0.156	0.096				
HEDGE	4	B	92	15	22	6	135	A	28	64	12	31	135	7.84***	-6.55***	1.83
			0.681	0.111	0.163	0.044			0.207	0.474	0.089	0.230				
HUM	19	B	85	15	17	18	135	A	101	8	14	12	135	-2.10*	1.53	0.57
			0.630	0.111	0.126	0.133			0.748	0.059	0.104	0.089				
INCENSE	14	A	65	24	19	27	135	B	22	57	22	34	135	5.60***	-4.38***	-0.51
			0.481	0.178	0.141	0.200			0.163	0.422	0.163	0.252				
KNOT	16	B	84	27	13	11	135	A	112	8	9	6	135	-3.82***	3.44***	0.89
			0.622	0.200	0.096	0.081			0.830	0.059	0.067	0.044				
MOTOR	9	A	95	23	10	7	135	B	78	32	13	12	135	2.16*	-1.36	-0.65
			0.704	0.170	0.074	0.052			0.578	0.237	0.096	0.089				
PLANE	8	A	99	9	19	8	135	B	55	52	14	14	135	5.41***	-6.26***	0.93
			0.733	0.067	0.141	0.059			0.407	0.385	0.104	0.104				
POLL	6	A	65	32	27	11	135	B	64	39	19	13	135	0.12	-0.97	1.29
			0.481	0.237	0.200	0.081			0.474	0.289	0.141	0.096				
POLICE	11	B	98	9	21	7	135	A	88	23	15	9	135	1.31	-2.64**	1.07
			0.726	0.067	0.156	0.052			0.652	0.170	0.111	0.067				
SCARE	1	B	105	9	16	5	135	A	53	55	20	7	135	6.42***	-6.58***	-0.72
			0.778	0.067	0.119	0.037			0.393	0.407	0.148	0.052				
SNAKE	3	A	83	26	23	3	135	B	103	19	10	3	135	-2.63**	1.14	2.42*
			0.615	0.193	0.170	0.022			0.763	0.141	0.074	0.022				
SPEAR	20	A	31	81	13	10	135	B	36	74	13	12	135	-0.70	0.86	0.0
			0.230	0.600	0.096	0.074			0.267	0.548	0.096	0.089				
SWAMP	7	B	65	43	24	3	135	A	44	71	12	8	135	2.60**	-3.45***	2.15*
			0.481	0.319	0.178	0.022			0.326	0.526	0.089	0.059				
TWINE	17	B	87	13	15	20	135	A	104	9	11	11	135	-2.27*	0.89	0.83
			0.644	0.096	0.111	0.148			0.770	0.067	0.081	0.081				
WORRY	2	B	69	40	20	6	135	A	74	34	24	3	135	-0.61	0.82	-0.66
			0.511	0.296	0.148	0.044			0.548	0.252	0.178	0.022				
YELL	13	B	99	14	16	6	135	A	106	12	12	5	135	-1.00	0.41	0.80
			0.733	0.104	0.119	0.044			0.785	0.089	0.089	0.037				
COLUMN SUMS			1618	595	408	214	2835		1569	699	318	249	2835			
			0.571	0.210	0.144	0.075			0.553	0.247	0.112	0.088				

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 2, GRADE 9, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS

WORD	ITEM	H(HIGH) E(H)	E(L)	E(A)	M	H(LOW) E(H)	E(L)	E(A)	M	ALL CASES E(H)	E(L)	E(A)	M	HEADL. F(1,264)	EVAL. F(2,264)	H*E F(2,264)
APPEAL	18	0.200	0.356	0.333	0.296	0.667	0.600	0.756	0.674	0.433	0.478	0.544	0.485	44.915***	1.312	1.451
BOTHER	5	0.711	0.733	0.733	0.726	0.511	0.667	0.533	0.570	0.611	0.700	0.633	0.648	7.273**	0.858	0.594
BUBBLE	21	0.267	0.333	0.333	0.311	0.756	0.844	0.889	0.830	0.511	0.589	0.611	0.570	100.936***	1.380	0.144
BUY	12	0.489	0.533	0.556	0.526	0.733	0.889	0.867	0.830	0.611	0.711	0.711	0.678	31.609***	1.523	0.357
CHANNEL	15	0.511	0.422	0.489	0.474	0.244	0.333	0.333	0.304	0.378	0.378	0.411	0.389	8.373**	0.142	0.776
DRUG	10	0.689	0.644	0.467	0.600	0.511	0.533	0.467	0.504	0.600	0.589	0.467	0.552	2.550	2.007	0.739
HEDGE	4	0.556	0.711	0.778	0.681	0.222	0.178	0.222	0.207	0.389	0.444	0.500	0.444	79.675***	1.459	1.770
HUM	19	0.556	0.756	0.578	0.630	0.689	0.844	0.711	0.748	0.622	0.800	0.644	0.689	4.535*	4.039*	0.071
INCENSE	14	0.533	0.467	0.444	0.481	0.222	0.156	0.111	0.163	0.378	0.311	0.278	0.322	35.007***	1.193	0.019
KNOT	16	0.689	0.578	0.600	0.622	0.867	0.778	0.844	0.830	0.778	0.678	0.722	0.726	15.237***	1.185	0.136
MOTOR	9	0.800	0.556	0.756	0.704	0.489	0.644	0.600	0.578	0.644	0.600	0.678	0.641	4.791*	0.613	4.095*
PLANE	8	0.778	0.756	0.667	0.733	0.289	0.533	0.400	0.407	0.533	0.644	0.533	0.570	33.017***	1.705	2.115
POLL	6	0.556	0.444	0.444	0.481	0.556	0.444	0.422	0.474	0.556	0.444	0.433	0.478	0.015	1.631	0.015
POLICE	11	0.667	0.756	0.756	0.726	0.556	0.667	0.733	0.652	0.611	0.711	0.744	0.689	1.730	2.024	0.225
SCARE	1	0.822	0.756	0.756	0.778	0.400	0.333	0.444	0.393	0.611	0.544	0.600	0.585	47.974***	0.550	0.444
SNAKE	3	0.578	0.622	0.644	0.615	0.733	0.844	0.711	0.763	0.656	0.733	0.678	0.689	7.006**	0.683	0.648
SPEAR	20	0.289	0.156	0.244	0.230	0.267	0.267	0.267	0.267	0.278	0.211	0.256	0.248	0.490	0.549	0.549
SWAMP	7	0.533	0.444	0.467	0.481	0.244	0.489	0.244	0.326	0.389	0.467	0.356	0.404	7.025**	1.259	3.011
TWINE	17	0.689	0.600	0.644	0.644	0.711	0.756	0.844	0.770	0.700	0.678	0.744	0.707	5.211*	0.505	0.938
WORRY	2	0.489	0.467	0.578	0.511	0.444	0.644	0.556	0.548	0.467	0.556	0.567	0.530	0.371	1.082	1.349
YELL	13	0.800	0.756	0.644	0.733	0.867	0.711	0.778	0.785	0.833	0.733	0.711	0.759	0.997	2.096	0.997

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             TABLE 5.5  DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

                            LEVEL 2, GRADE 9, ALL CASES

BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
          THE SECOND LINE GIVES BISERIALS R'S

                                   WORDS IN HIGH MGF                WORDS IN LOW MGF
         WORD       ITEM FORM  A        V       E      H    FORM  A       V       E      H

         APPEAL      18     A 14.47 20.67 18.50 15.92      B 14.56 19.59 17.67 14.29
                               -0.264 0.476 0.479 0.657      -0.320 0.570 0.552 0.870
         BOTHER       5     A 14.62 18.95 17.55 13.86      B 14.53 19.92 17.58 14.52
                               -0.134 0.460 0.377 0.820      -0.309 0.561 0.377 0.737
         BUBBLE      21     B 14.40 19.45 17.38 15.07      A 14.65 18.50 17.55 13.31
                               -0.357 0.237 0.155 0.536      -0.041 0.398 0.569 0.895
         BUY         12     A 14.58 19.66 18.08 14.82      B 14.65 19.04 17.30 13.32
                               -0.181 0.467 0.515 0.736      -0.110 0.544 0.470 0.942
         CHANNEL     15     A 14.67 18.59 17.72 14.80      B 14.44 20.51 18.00 15.95
                                0.025 0.167 0.287 0.659      -0.307 0.462 0.375 0.669
         DRUG        10     B 14.53 19.53 17.53 14.25      A 14.62 19.44 17.82 14.41
                               -0.335 0.449 0.369 0.711      -0.088 0.390 0.359 0.607
         HEDGE        4     B 14.60 18.99 17.37 14.01      A 14.46 21.50 18.79 15.75
                               -0.219 0.296 0.326 0.791      -0.236 0.521 0.489 0.531
         HUM         19     B 14.66 19.31 17.47 13.95      A 14.59 18.82 17.70 13.83
                               -0.038 0.389 0.355 0.673      -0.255 0.435 0.550 0.871
         INCENSE     14     A 14.60 19.85 17.91 15.32      B 14.55 19.50 17.86 16.18
                               -0.120 0.471 0.384 0.789      -0.128 0.186 0.248 0.536
         KNOT        16     B 14.57 19.67 17.55 14.23      A 14.59 18.59 17.67 13.31
                               -0.253 0.528 0.400 0.743      -0.382 0.456 0.723 0.895
         MOTOR        9     A 14.64 18.84 17.72 13.83      B 14.67 19.37 17.54 14.28
                               -0.058 0.386 0.489 0.757      -0.016 0.369 0.355 0.685
         PLANE        8     A 14.61 19.15 17.80 14.11      B 14.55 20.36 18.09 15.13
                               -0.198 0.561 0.610 0.947      -0.203 0.520 0.492 0.650
         POLL         6     A 14.57 20.38 18.17 15.06      B 14.52 20.39 17.70 14.92
                               -0.182 0.601 0.513 0.729      -0.284 0.598 0.368 0.692
         POLICE      11     B 14.60 19.28 17.65 14.14      A 14.57 19.41 18.06 14.31
                               -0.236 0.492 0.627 0.956      -0.268 0.534 0.668 0.814
         SCARE        1     B 14.58 18.97 17.36 13.56      A 14.60 18.62 17.49 14.60
                               -0.365 0.393 0.438 0.867      -0.095 0.149 0.152 0.528
         SNAKE        3     A 14.57 19.83 18.01 14.47      B 14.55 18.86 17.36 13.25
                               -0.250 0.622 0.580 0.791      -0.448 0.306 0.412 0.680
         SPEAR       20     A 14.77 19.61 17.81 15.84      B 14.58 19.28 17.53 15.64
                                0.145 0.260 0.209 0.567      -0.111 0.184 0.192 0.578
         SWAMP        7     B 14.57 20.11 18.02 15.08      A 14.59 19.20 17.66 14.23
                               -0.191 0.522 0.529 0.737      -0.103 0.237 0.196 0.404
         TWINE       17     B 14.55 19.64 17.53 14.60      A 14.63 18.98 17.78 13.88
                               -0.318 0.549 0.410 0.903      -0.104 0.552 0.674 0.964
         WORRY        2     B 14.48 19.58 17.83 15.10      A 14.59 19.35 17.99 14.26
                               -0.378 0.386 0.461 0.787      -0.150 0.403 0.485 0.625
         YELL        13     B 14.64 18.91 17.22 13.62      A 14.63 18.90 17.78 13.75
                               -0.127 0.302 0.246 0.763      -0.122 0.539 0.718 0.959

           MEANS BY FORM    A 14.66 17.89 17.13 11.86      B 14.67 18.36 16.96 11.75
           S.D.'S BY FORM      0.60  5.02  2.46  5.31         0.66  4.04  2.42  5.46
           N                 135.00                         135.00
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TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 3, GRADE 6, ALL CASES

			-------WORDS IN HIGH MGF-------						-------WORDS IN LOW MGF--------							
WORD	ITEM	FORM	1(R)	2(W)	3(?)	4(NR)	TCT.	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	Z(D(R))	Z(D(W))	Z(D(?))
ANIMATE	11	A	28 0.173	90 0.556	29 0.179	15 0.093	162	B	2 0.012	85 0.525	35 0.216	40 0.247	162	4.98***	0.56	-0.84
BLOUSE	21	B	53 0.327	41 0.253	27 0.167	41 0.253	162	A	85 0.525	25 0.154	24 0.148	28 0.173	162	-3.60***	2.21*	0.46
BUFFALO	16	A	46 0.284	56 0.346	36 0.222	24 0.148	162	B	13 0.080	80 0.494	21 0.130	48 0.296	162	4.75***	-2.70**	2.19*
ECLIPSE	9	A	68 0.420	38 0.235	35 0.216	21 0.130	162	B	40 0.247	43 0.265	27 0.167	52 0.321	162	3.30***	-0.64	1.13
EPIDEMIC	17	A	80 0.494	26 0.160	21 0.130	35 0.216	162	B	12 0.074	63 0.389	25 0.154	62 0.383	162	8.38***	-4.61***	-0.64
HOIST	5	B	69 0.426	43 0.265	26 0.160	24 0.148	162	A	39 0.241	35 0.216	54 0.333	34 0.210	162	3.54***	1.04	-3.61***
IMPRESS	6	A	65 0.401	41 0.253	42 0.259	14 0.086	162	B	56 0.346	46 0.284	42 0.259	18 0.111	162	1.03	-0.63	0.0
MELLOW	14	B	53 0.327	58 0.358	24 0.148	27 0.167	162	A	34 0.210	56 0.346	52 0.321	20 0.123	162	2.38*	0.23	-3.67***
NIBBLE	19	A	47 0.290	71 0.438	26 0.160	18 0.111	162	B	89 0.549	25 0.154	23 0.142	25 0.154	162	-4.73***	5.60***	0.47
NOVEL	1	B	83 0.512	40 0.247	28 0.173	11 0.068	162	A	49 0.302	49 0.302	51 0.315	13 0.080	162	3.84***	-1.12	-2.98**
OUTRAGE	18	B	21 0.130	66 0.407	34 0.210	41 0.253	162	A	37 0.228	73 0.451	33 0.204	19 0.117	162	-2.32*	-0.79	0.14
OVERTURN	3	A	95 0.586	30 0.185	32 0.198	5 0.031	162	B	76 0.469	40 0.247	35 0.216	11 0.068	162	2.11*	-1.35	-0.41
PARROT	13	A	99 0.611	18 0.111	34 0.210	11 0.068	162	B	22 0.136	98 0.605	15 0.093	27 0.167	162	8.84***	-9.27***	2.95**
PENSION	2	A	13 0.080	63 0.389	51 0.315	35 0.216	162	B	9 0.056	75 0.463	28 0.173	50 0.309	162	0.88	-1.35	2.98**
PLANK	8	B	81 0.500	39 0.241	30 0.185	12 0.074	162	A	34 0.210	83 0.512	28 0.173	17 0.105	162	5.46***	-5.05***	0.29
PRESSURE	7	B	56 0.346	47 0.290	36 0.222	23 0.142	162	A	16 0.099	111 0.685	26 0.160	9 0.056	162	5.35***	-7.11***	1.41
PRIMARY	20	A	20 0.123	66 0.407	31 0.191	45 0.278	162	B	38 0.235	45 0.278	36 0.222	43 0.265	162	-2.61**	2.46*	-0.69
SLEIGH	10	A	67 0.414	36 0.222	35 0.216	24 0.148	162	B	52 0.321	49 0.302	31 0.191	30 0.185	162	1.73	-1.64	0.55
SPLINTER	4	B	107 0.660	11 0.068	29 0.179	15 0.093	162	A	16 0.099	94 0.580	38 0.235	14 0.086	162	10.42***	-9.85***	-1.23
STRUCTURE	15	A	75 0.463	30 0.185	34 0.210	23 0.142	162	B	14 0.086	75 0.463	29 0.179	44 0.272	162	7.59***	-5.34***	0.70
TARRY	12	B	53 0.327	60 0.370	13 0.080	36 0.222	162	A	22 0.136	81 0.500	38 0.235	21 0.130	162	4.08***	-2.35*	-3.81***
COLUMN SUMS			1279 0.376	970 0.285	653 0.192	500 0.147	3402		755 0.222	1331 0.391	691 0.203	625 0.184	3402			

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 3, GRADE 6, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS

		H(HIGH)				H(LOW)				ALL CASES				HEADL.	EVAL.	H*E
WORD	ITEM	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	F(1,318)	F(2,318)	F(2,318)
ANIMATE	11	0.241	0.130	0.148	0.173	0.037	0.0	0.0	0.012	0.139	0.065	0.074	0.093	26.858***	2.265	0.516
BLOUSE	21	0.389	0.315	0.278	0.327	0.574	0.500	0.500	0.525	0.481	0.407	0.389	0.426	13.308***	1.092	0.052
BUFFALO	16	0.256	0.296	0.259	0.284	0.019	0.130	0.093	0.080	0.157	0.213	0.176	0.182	24.019***	0.618	0.794
ECLIPSE	9	0.407	0.463	0.389	0.420	0.167	0.296	0.278	0.247	0.287	0.380	0.333	0.333	11.170***	1.069	0.527
EPIDEMIC	17	0.574	0.444	0.463	0.494	0.074	0.093	0.056	0.074	0.324	0.269	0.259	0.284	88.923***	0.827	0.942
HOIST	5	0.574	0.352	0.352	0.426	0.259	0.241	0.222	0.241	0.417	0.296	0.287	0.333	13.104***	2.665	1.616
IMPRESS	6	0.426	0.389	0.389	0.401	0.352	0.333	0.352	0.346	0.389	0.361	0.370	0.373	1.053	0.091	0.039
MELLOW	14	0.315	0.352	0.315	0.327	0.204	0.222	0.204	0.210	0.259	0.287	0.259	0.269	5.672*	0.141	0.016
NIBBLE	19	0.370	0.296	0.204	0.290	0.500	0.611	0.537	0.549	0.435	0.454	0.370	0.420	23.923***	0.909	1.505
NOVEL	1	0.481	0.463	0.593	0.512	0.407	0.241	0.259	0.302	0.444	0.352	0.426	0.407	15.495***	1.126	1.984
OUTRAGE	18	0.167	0.074	0.148	0.130	0.204	0.278	0.204	0.228	0.185	0.176	0.176	0.179	5.419*	0.021	1.545
OVERTURN	3	0.611	0.574	0.574	0.586	0.426	0.500	0.481	0.469	0.519	0.537	0.528	0.528	4.461*	0.037	0.383
PARROT	13	0.630	0.593	0.611	0.611	0.111	0.185	0.111	0.136	0.370	0.389	0.361	0.373	101.596***	0.120	0.531
PENSION	2	0.093	0.111	0.037	0.080	0.093	0.056	0.019	0.056	0.093	0.083	0.028	0.068	0.779	2.095	0.341
PLANK	8	0.426	0.519	0.556	0.500	0.241	0.241	0.148	0.210	0.333	0.380	0.352	0.355	32.567***	0.280	1.607
PRESSURE	7	0.333	0.407	0.296	0.346	0.056	0.185	0.056	0.099	0.194	0.296	0.176	0.222	31.338***	2.879	0.137
PRIMARY	20	0.111	0.204	0.056	0.123	0.259	0.241	0.204	0.235	0.185	0.222	0.130	0.179	6.924**	1.624	0.769
SLEIGH	10	0.426	0.463	0.352	0.414	0.315	0.407	0.241	0.321	0.370	0.435	0.296	0.367	3.005	2.257	0.120
SPLINTER	4	0.685	0.630	0.667	0.660	0.056	0.111	0.130	0.099	0.370	0.370	0.398	0.380	160.944***	0.175	0.603
STRUCTURE	15	0.519	0.370	0.500	0.463	0.093	0.111	0.056	0.086	0.306	0.241	0.278	0.275	69.859***	0.695	1.708
TARRY	12	0.389	0.352	0.241	0.327	0.148	0.130	0.130	0.136	0.269	0.241	0.185	0.231	17.461***	1.145	0.781

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                    TABLE 5.5  DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

                                  LEVEL 3, GRADE 6, ALL CASES

BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
         THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
           THE SECOND LINE GIVES BISERIALS R'S

                                   WORDS IN HIGH MGF                WORDS IN LOW MGF
         WORD       ITEM FORM  A      V      E      H    FORM  A      V      E      H

         ANIMATE     11    A 11.50 16.07 15.39 11.68    B 12.00 12.00 16.00  9.00
                             -0.238 0.481 0.360 0.754       0.160-0.014 0.254 0.264
         BLOUSE      21    B 11.60 15.25 15.70  9.85    A 11.65 14.11 14.58  8.82
                             -0.150 0.508 0.518 0.814     -0.157 0.458 0.333 0.678
         BUFFALO     16    A 11.57 15.83 15.41 10.85    B 11.46 17.62 14.85 10.08
                             -0.208 0.559 0.453 0.789     -0.202 0.537 0.166 0.514
         ECLIPSE      9    A 11.50 14.74 14.65  9.65    B 11.60 15.35 15.02  9.22
                             -0.378 0.499 0.298 0.739     -0.133 0.453 0.284 0.583
         EPIDEMIC    17    A 11.55 14.86 15.00  9.60    B 11.42 14.83 15.50  9.75
                             -0.338 0.605 0.493 0.840     -0.233 0.257 0.270 0.462
         HOIST        5    B 11.68 15.46 15.35  9.48    A 11.49 15.95 15.33 10.79
                             -0.056 0.653 0.503 0.877     -0.288 0.533 0.396 0.719
         IMPRESS      6    A 11.69 14.66 15.08  9.68    B 11.55 13.20 14.75  7.57
                             -0.049 0.468 0.441 0.721     -0.224 0.172 0.262 0.321
         MELLOW      14    B 11.58 15.62 15.36  9.11    A 11.53 17.44 16.06 11.47
                             -0.175 0.571 0.423 0.651     -0.222 0.704 0.554 0.781
         NIBBLE      19    A 11.57 14.66 14.62  9.98    B 11.60 14.52 14.83  8.62
                             -0.198 0.382 0.226 0.643     -0.246 0.592 0.422 0.829
         NOVEL        1    B 11.60 14.61 15.06  8.65    A 11.61 14.76 14.63  9.47
                             -0.215 0.571 0.481 0.778     -0.151 0.406 0.236 0.564
         OUTRAGE     18    B 11.43 15.95 16.29  9.81    A 11.65 15.49 15.43  9.84
                             -0.259 0.423 0.461 0.544     -0.088 0.456 0.413 0.550
         OVERTURN     3    A 11.66 13.89 14.51  8.67    B 11.63 14.33 14.49  8.33
                             -0.141 0.465 0.344 0.727     -0.146 0.462 0.233 0.622
         PARROT      13    A 11.59 14.08 14.72  8.92    B 11.59 16.45 15.86  9.95
                             -0.345 0.547 0.481 0.852     -0.114 0.487 0.387 0.574
         PENSION      2    A 11.38 17.23 16.38 12.62    B 11.56 19.11 15.33 10.78
                             -0.289 0.501 0.471 0.709     -0.117 0.632 0.228 0.558
         PLANK        8    B 11.64 14.00 14.95  8.35    A 11.53 15.71 15.29 10.68
                             -0.137 0.415 0.427 0.666     -0.222 0.469 0.363 0.659
         PRESSURE     7    B 11.70 15.88 15.59  9.07    A 11.69 15.94 15.75 11.06
                             -0.027 0.634 0.504 0.664     -0.031 0.391 0.373 0.561
         PRIMARY     20    A 11.50 17.20 15.75 11.80    B 11.53 15.79 15.34  9.61
                             -0.213 0.558 0.396 0.691     -0.213 0.504 0.352 0.640
         SLEIGH      10    A 11.45 15.66 15.25 10.30    B 11.65 15.35 14.75  9.48
                             -0.462 0.675 0.516 0.877     -0.082 0.519 0.250 0.724
         SPLINTER     4    B 11.64 14.03 14.54  7.99    A 11.44 15.50 15.44 12.06
                             -0.214 0.607 0.387 0.802     -0.256 0.345 0.312 0.681
         STRUCTURE   15    A 11.56 15.16 15.13  9.80    B 11.64 17.79 16.00 10.50
                             -0.300 0.634 0.518 0.840     -0.059 0.564 0.365 0.580
         TARRY       12    B 11.53 15.00 14.94  9.15    A 11.41 14.27 15.14 10.95
                             -0.250 0.467 0.307 0.660     -0.309 0.236 0.277 0.600

           MEANS BY FORM   A 11.72 12.23 13.84  6.39    B 11.72 12.20 13.85  6.17
           S.D.'S BY FORM     0.63  5.38  2.91  4.73       0.68  5.44  3.24  4.10
           N                162.00                       162.00
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TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 3, GRADE 9, ALL CASES

		-------WORDS IN HIGH MGF-------						-------WORDS IN LOW MGF--------								
WORD	ITEM	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	FORM	1(R)	2(W)	3(?)	4(NR)	TOT.	Z(D(R))	Z(D(W))	Z(D(?))
ANIMATE	11	A	56	58	15	12	141	B	4	92	22	23	141	7.57***	-4.06***	-1.23
			0.397	0.411	0.106	0.085			0.028	0.652	0.156	0.163				
BLOUSE	21	B	54	56	15	16	141	A	89	22	12	18	141	-4.17***	4.53***	0.61
			0.383	0.397	0.106	0.113			0.631	0.156	0.085	0.128				
BUFFALO	16	A	63	50	15	13	141	B	32	66	14	29	141	3.91***	-1.94	0.20
			0.447	0.355	0.106	0.092			0.227	0.468	0.099	0.206				
ECLIPSE	9	A	84	37	17	3	141	B	59	45	10	27	141	2.98**	-1.05	1.42
			0.596	0.262	0.121	0.021			0.418	0.319	0.071	0.191				
EPIDEMIC	17	A	105	18	3	15	141	B	29	61	26	25	141	9.06***	-5.70***	-4.51***
			0.745	0.128	0.021	0.106			0.206	0.433	0.184	0.177				
HOIST	5	B	86	30	18	7	141	A	70	15	42	14	141	1.92	2.44*	-3.49***
			0.610	0.213	0.128	0.050			0.496	0.106	0.298	0.099				
IMPRESS	6	A	90	32	14	5	141	B	68	27	35	11	141	2.64**	0.73	-3.30***
			0.638	0.227	0.099	0.035			0.482	0.191	0.248	0.078				
MELLOW	14	B	59	62	11	9	141	A	82	28	19	12	141	-2.74**	4.34***	-1.55
			0.418	0.440	0.078	0.064			0.582	0.199	0.135	0.085				
NIBBLE	19	A	56	67	10	8	141	B	91	26	10	14	141	-4.17***	5.19***	0.0
			0.397	0.475	0.071	0.057			0.645	0.184	0.071	0.099				
NOVEL	1	B	116	9	11	5	141	A	77	42	14	8	141	5.00***	-5.11***	-0.63
			0.823	0.064	0.078	0.035			0.546	0.298	0.099	0.057				
OUTRAGE	18	B	51	53	20	17	141	A	70	54	7	10	141	-2.29*	-0.12	2.63**
			0.362	0.376	0.142	0.121			0.496	0.383	0.050	0.071				
OVERTURN	3	A	96	34	10	1	141	B	70	41	24	6	141	3.15**	-0.94	-2.56*
			0.681	0.241	0.071	0.007			0.496	0.291	0.170	0.043				
PARROT	13	A	114	12	11	4	141	B	40	80	10	11	141	8.85***	-8.64***	0.23
			0.809	0.085	0.078	0.028			0.284	0.567	0.071	0.078				
PENSION	2	A	55	60	19	7	141	B	35	64	24	18	141	2.55*	-0.48	-0.83
			0.390	0.426	0.135	0.050			0.248	0.454	0.170	0.128				
PLANK	8	B	71	39	24	7	141	A	64	49	19	9	141	0.83	-1.29	0.83
			0.504	0.277	0.170	0.050			0.454	0.348	0.135	0.064				
PRESSURE	7	B	67	27	32	15	141	A	42	84	9	6	141	3.06**	-6.95***	3.89***
			0.475	0.191	0.227	0.106			0.298	0.596	0.064	0.043				
PRIMARY	20	A	70	36	13	22	141	B	81	25	18	17	141	-1.31	1.59	-0.95
			0.496	0.255	0.092	0.156			0.574	0.177	0.128	0.121				
SLEIGH	10	A	81	32	18	10	141	B	63	50	16	12	141	2.14*	-2.36*	0.37
			0.574	0.227	0.128	0.071			0.447	0.355	0.113	0.085				
SPLINTER	4	B	101	7	23	10	141	A	31	88	14	8	141	8.35***	-10.21***	1.59
			0.716	0.050	0.163	0.071			0.220	0.624	0.099	0.057				
STRUCTURE	15	A	98	24	7	12	141	B	18	86	21	16	141	9.68***	-7.57***	-2.79**
			0.695	0.170	0.050	0.085			0.128	0.610	0.149	0.113				
TARRY	12	B	81	35	10	15	141	A	18	94	15	14	141	7.86***	-7.05***	-1.05
			0.574	0.248	0.071	0.106			0.128	0.667	0.106	0.099				
COLUMN SUMS			1654	778	316	213	2961		1133	1139	381	308	2961			
			0.559	0.263	0.107	0.072			0.383	0.385	0.129	0.104				

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 3, GRADE 9, ALL CASES

ANALYSIS OF VARIANCE OF E-H FORM COMBINATIONS

		H(HIGH)				H(LOW)				ALL CASES				HEADL.	EVAL.	H*E
WORD	ITEM	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	E(H)	E(L)	E(A)	M	F(1,276)	F(2,276)	F(2,276)
ANIMATE	11	0.511	0.362	0.319	0.397	0.021	0.064	0.0	0.028	0.266	0.213	0.160	0.213	72.316***	2.006	1.952
BLOUSE	21	0.340	0.340	0.468	0.383	0.638	0.723	0.532	0.631	0.489	0.532	0.500	0.507	18.512***	0.196	2.735
BUFFALO	16	0.447	0.447	0.447	0.447	0.255	0.191	0.234	0.227	0.351	0.319	0.340	0.337	15.810***	0.115	0.115
ECLIPSE	9	0.596	0.617	0.574	0.596	0.340	0.404	0.511	0.418	0.468	0.511	0.543	0.507	9.058**	0.536	0.971
EPIDEMIC	17	0.766	0.681	0.787	0.745	0.170	0.213	0.234	0.206	0.468	0.447	0.511	0.475	114.327***	0.554	0.554
HOIST	5	0.638	0.681	0.511	0.610	0.468	0.574	0.447	0.496	0.553	0.628	0.479	0.553	3.705	2.128	0.275
IMPRESS	6	0.723	0.574	0.617	0.638	0.511	0.532	0.404	0.482	0.617	0.553	0.511	0.560	7.095**	1.114	0.938
MELLOW	14	0.532	0.298	0.426	0.418	0.660	0.553	0.532	0.582	0.596	0.426	0.479	0.500	7.740**	2.941	0.629
NIBBLE	19	0.511	0.362	0.319	0.397	0.702	0.681	0.553	0.645	0.606	0.521	0.436	0.521	18.597***	2.915	0.425
NOVEL	1	0.830	0.872	0.766	0.823	0.660	0.468	0.511	0.546	0.745	0.670	0.638	0.684	27.416***	1.424	1.676
OUTRAGE	18	0.426	0.404	0.255	0.362	0.404	0.574	0.511	0.496	0.415	0.489	0.383	0.429	5.329*	1.166	1.963
OVERTURN	3	0.638	0.702	0.702	0.681	0.574	0.489	0.426	0.496	0.606	0.596	0.564	0.589	10.142**	0.195	1.185
PARROT	13	0.809	0.809	0.809	0.809	0.298	0.319	0.234	0.284	0.553	0.564	0.521	0.546	106.555***	0.253	0.253
PENSION	2	0.404	0.426	0.340	0.390	0.255	0.234	0.255	0.248	0.330	0.330	0.298	0.319	6.562*	0.148	0.312
PLANK	8	0.511	0.574	0.426	0.504	0.532	0.447	0.383	0.454	0.521	0.511	0.404	0.479	0.694	1.571	0.524
PRESSURE	7	0.574	0.404	0.447	0.475	0.298	0.340	0.255	0.298	0.436	0.372	0.351	0.387	9.596**	0.798	1.167
PRIMARY	20	0.596	0.511	0.383	0.496	0.617	0.532	0.574	0.574	0.606	0.521	0.479	0.535	1.730	1.601	0.915
SLEIGH	10	0.596	0.511	0.617	0.574	0.447	0.489	0.404	0.447	0.521	0.500	0.511	0.511	4.606*	0.043	0.896
SPLINTER	4	0.702	0.745	0.702	0.716	0.191	0.234	0.234	0.220	0.447	0.489	0.468	0.468	90.960***	0.223	0.074
STRUCTURE	15	0.723	0.723	0.638	0.695	0.106	0.149	0.128	0.128	0.415	0.436	0.383	0.411	138.216***	0.410	0.410
TARRY	12	0.660	0.511	0.553	0.574	0.106	0.149	0.128	0.128	0.383	0.330	0.340	0.351	78.358***	0.415	1.244

TABLE 5.5 DATA FROM MAIN STUDY: HEADLINES TEST (CONTINUED)

LEVEL 3, GRADE 9, ALL CASES

BISERIAL CORRELATIONS WITH AGE(A), VOCABULARY SCORE(V), EVALUATIONS SCORE(E), & HEADLINES SCORE(H)
THE FIRST LINE FOR A WORD GIVES MEAN SCORES FOR THOSE GIVING A CORRECT RESPONSE,
THE SECOND LINE GIVES BISERIALS R'S

		WORDS IN HIGH MGF					WORDS IN LOW MGF				
WORD	ITEM	FORM	A	V	E	H	FORM	A	V	E	H
ANIMATE	11	A	14.32	20.73	17.21	14.05	B	14.00	22.00	16.25	15.00
			-0.353	0.519	0.540	0.703		-0.409	0.384	0.044	0.584
BLOUSE	21	B	14.52	19.30	16.83	11.54	A	14.46	19.18	16.56	12.56
			-0.132	0.314	0.324	0.565		-0.194	0.260	0.484	0.632
BUFFALO	16	A	14.41	20.54	17.02	13.86	B	14.66	19.41	17.16	11.88
			-0.220	0.521	0.511	0.726		0.063	0.253	0.335	0.481
ECLIPSE	9	A	14.48	19.64	16.61	12.85	B	14.44	19.10	16.39	10.95
			-0.140	0.399	0.470	0.670		-0.271	0.292	0.166	0.460
EPIDEMIC	17	A	14.42	19.81	16.42	12.38	B	14.59	19.97	17.03	11.69
			-0.426	0.687	0.551	0.789		-0.019	0.328	0.288	0.431
HOIST	5	B	14.55	19.12	16.57	11.06	A	14.47	20.34	16.64	13.60
			-0.140	0.438	0.355	0.722		-0.123	0.518	0.396	0.734
IMPRESS	6	A	14.41	19.33	16.28	12.08	B	14.68	18.31	16.29	10.99
			-0.335	0.323	0.318	0.475		0.139	0.126	0.144	0.530
MELLOW	14	B	14.59	18.86	16.46	10.68	A	14.45	19.98	16.77	13.34
			-0.016	0.238	0.194	0.395		-0.196	0.497	0.541	0.800
NIBBLE	19	A	14.52	19.96	16.82	13.50	B	14.51	19.03	16.67	10.95
			-0.024	0.341	0.394	0.587		-0.264	0.447	0.453	0.744
NOVEL	1	B	14.59	18.43	16.29	10.39	A	14.44	18.69	15.92	11.71
			-0.040	0.411	0.375	0.956		-0.203	0.062	0.081	0.281
OUTRAGE	18	B	14.53	19.82	17.20	12.02	A	14.37	20.47	16.79	13.26
			-0.111	0.410	0.444	0.648		-0.325	0.554	0.460	0.647
OVERTURN	3	A	14.50	19.13	16.51	12.36	B	14.64	18.09	16.27	10.73
			-0.099	0.272	0.516	0.643		0.078	0.071	0.138	0.473
PARROT	13	A	14.47	19.45	16.18	12.15	B	14.47	20.32	16.88	12.72
			-0.281	0.637	0.444	0.868		-0.167	0.445	0.283	0.696
PENSION	2	A	14.56	19.53	16.49	13.56	B	14.49	20.31	17.00	12.09
			0.053	0.237	0.268	0.592		-0.143	0.414	0.302	0.538
PLANK	8	B	14.61	18.56	16.18	11.20	A	14.53	20.45	16.77	13.39
			0.006	0.200	0.097	0.613		-0.001	0.506	0.415	0.627
PRESSURE	7	B	14.51	19.15	16.40	11.93	A	14.55	19.79	16.90	13.95
			-0.178	0.337	0.191	0.776		0.022	0.250	0.355	0.569
PRIMARY	20	A	14.40	20.00	16.61	13.53	B	14.57	19.15	16.62	10.89
			-0.267	0.423	0.383	0.716		-0.080	0.413	0.353	0.610
SLEIGH	10	A	14.40	19.79	16.21	13.10	B	14.48	19.68	16.62	11.48
			-0.327	0.429	0.238	0.714		-0.224	0.446	0.273	0.620
SPLINTER	4	B	14.58	18.99	16.43	10.95	A	14.48	19.84	16.65	13.81
			-0.062	0.525	0.357	0.909		-0.058	0.225	0.237	0.469
STRUCTURE	15	A	14.43	19.76	16.31	12.60	B	14.61	19.22	16.44	11.89
			-0.334	0.565	0.391	0.766		0.008	0.182	0.107	0.392
TARRY	12	B	14.51	19.79	16.67	11.26	A	14.56	20.78	16.50	14.06
			-0.221	0.612	0.381	0.732		0.024	0.314	0.163	0.417
MEANS BY FORM		A	14.53	18.49	15.76	10.72	B	14.60	17.82	15.58	9.05
S.D.'S BY FORM			0.61	4.45	2.78	4.89		0.64	4.73	2.65	4.42
N			141.00					141.00			

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TABLE 5.6 INTERCORRELATIONS OF SCORES FOR E*H FORM COMBINATIONS, WITH ANOVAS AMONG FORMS

                                        LEVEL 1, GRADE 3

                   EVALUATION FORM A                EVALUATION FORM B                EVALUATION FORM C

HEADLINES                N =  69                          N =  69                          N =  69
 FORM A
               A       V       E       H          A       V       E       H          A       V       E       H
      AGE   A  1.000   0.160  -0.070   0.001   A  1.000  -0.012  -0.017  -0.110   A  1.000  -0.217  -0.301  -0.089
   VOCAB.   V  0.160   1.000   0.456   0.520   V -0.012   1.000   0.464   0.637   V -0.217   1.000   0.612   0.635
    EVAL.   E -0.070   0.456   1.000   0.485   E -0.017   0.464   1.000   0.646   E -0.301   0.612   1.000   0.604
   HEADL.   H  0.001   0.520   0.485   1.000   H -0.110   0.637   0.646   1.000   H -0.089   0.635   0.604   1.000

            M  8.681   6.870  13.783   6.507   M  8.638   6.797  14.101   6.420   M  8.536   6.420  15.449   6.957
            S  0.577   3.945   3.166   4.748   S  0.589   4.141   3.608   4.823   S  0.627   4.001   3.654   5.034

                              ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=204)

                                             A       V       E       H
                                          F  1.049   0.244   4.387   0.237
                                          P  0.353   0.795   0.013   0.801

HEADLINES                N =  69                          N =  69                          N =  69
 FORM B
               A       V       E       H          A       V       E       H          A       V       E       H
      AGE   A  1.000  -0.258   0.061   0.006   A  1.000  -0.339  -0.277  -0.310   A  1.000  -0.294  -0.156  -0.051
   VOCAB.   V -0.258   1.000   0.359   0.405   V -0.339   1.000   0.489   0.456   V -0.294   1.000   0.434   0.612
    EVAL.   E  0.061   0.359   1.000   0.520   E -0.277   0.489   1.000   0.415   E -0.156   0.434   1.000   0.483
   HEADL.   H  0.006   0.405   0.520   1.000   H -0.310   0.456   0.415   1.000   H -0.051   0.612   0.483   1.000

            M  8.725   6.159  13.304   4.261   M  8.609   6.377  14.725   4.203   M  8.725   6.551  15.275   4.710
            S  0.657   3.847   3.560   3.606   S  0.664   3.460   3.026   3.839   S  0.634   4.077   3.331   4.246

                              ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=204)

                                             A       V       E       H
                                          F  0.716   0.181   6.407   0.344
                                          P  0.505   0.855   0.002   0.717

                              ANOVAS BETWEEN HEADLINE FORMS (DF1=1, DF2=136)

               A       V       E       H          A       V       E       H          A       V       E       H
            F  0.171   1.129   0.685   9.654   F  0.068   0.412   1.191   8.799   F  3.027   0.035   0.084   7.911
            P  0.689   0.290   0.586   0.003   P  0.846   0.529   0.277   0.004   P  0.080   0.944   0.810   0.006
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TABLE 5.6 INTERCORRELATICNS OF SCORES FCR E*H FORM COMBINATIONS, WITH ANOVAS AMONG FORMS (CONTINUED)

                                          LEVEL 1, GRACE 6

                  EVALUATICN FORM A                   EVALUATION FORM B                   EVALUATION FORM C

HEADLINES              N =  40                             N =  40                             N =  40
 FORM A
              A       V       E       H           A       V       E       H           A       V       E       H
    AGE   A  1.000   C.025  -0.246   0.0      A  1.000  -0.258  -0.106  -0.067    A  1.000  -0.143  -0.288  -0.399
  VOCAB.  V  0.025   1.000   0.627   0.585    V -0.258   1.000   0.261   0.552    V -0.143   1.000   0.5C3   0.615
   EVAL.  E -0.246   C.627   1.000   0.422    E -0.106   0.261   1.000   0.442    E -0.288   0.503   1.000   0.499
  HEADL.  H  0.0     0.585   0.422   1.000    H -0.067   0.552   0.442   1.000    H -0.399   0.615   0.499   1.000

          M 11.750  12.650  16.150  12.100    M 11.600  14.525  18.625  14.725    M 11.625  13.125  18.100  13.625
          S  0.661   5.242   1.918   6.468    S  0.663   4.478   1.770   4.722    S  0.620   5.662   1.609   5.122

                             ANCVA AMCNG EVALUATICN FCRMS (DF1=2, DF2=117)

                                                  A       V       E       H
                                              F  0.598   1.397  21.162   2.250
                                              P  0.557   0.250   0.000   0.108

HEADLINES              N =  40                             N =  40                             N =  40
 FORM B
              A       V       E       H           A       V       E       H           A       V       E       H
    AGE   A  1.000  -0.277  -0.227  -0.247    A  1.000  -0.285  -0.252  -0.163    A  1.000  -0.091  -0.319  -0.343
  VOCAB.  V -0.277   1.000   0.591   0.721    V -0.285   1.000   0.785   0.699    V -0.091   1.000   0.337   0.586
   EVAL.  E -0.227   C.591   1.000   0.586    E -0.252   0.785   1.000   0.829    E -0.319   0.337   1.00C   0.360
  HEADL.  H -0.247   0.721   0.586   1.000    H -0.163   0.699   0.829   1.000    H -0.343   0.586   0.360   1.000

          M 11.725  12.550  15.625   9.100    M 11.875  11.275  16.750   9.775    M 11.550  12.825  17.725   9.675
          S  0.741   4.626   2.546   5.585    S  0.714   4.754   2.395   6.052    S  0.669   4.577   3.742   5.972

                             ANOVA AMONG EVALUATICN FCRMS (DF1=2, DF2=117)

                                                  A       V       E       H
                                              F  2.056   1.232   4.928   0.150
                                              P  0.130   0.295   0.009   0.888

                             ANOVAS BETWEEN HEADLINE FORMS (DF1=1, DF2= 78)

              A       V       E       H           A       V       E       H           A       V       E       H
          F  0.023   C.CC8   1.058   4.806    F  3.105   9.659  15.454  16.217    F  0.266   0.066   0.331   9.830
          P  0.98C   1.000   0.308   0.029    P  0.078   0.003   0.000   0.000    P  0.615   0.852   0.574   0.003
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TABLE 5.6 INTERCORRELATIONS OF SCORES FOR E*H FORM COMBINATIONS, WITH ANOVAS AMONG FORMS (CONTINUED)

                                          LEVEL 2, GRADE 6

                  EVALUATION FORM A                  EVALUATION FORM B                  EVALUATION FORM C

HEADLINES              N =  56                            N =  56                            N =  56
 FORM A
              A      V      E      H           A      V      E      H           A      V      E      H
   AGE    A  1.000 -0.267 -0.319 -0.228    A  1.000 -0.240 -0.292 -0.354    A  1.000 -0.403 -0.087 -0.258
 VOCAB.   V -0.267  1.000  0.354  0.576    V -0.240  1.000  0.573  0.685    V -0.403  1.000  0.599  0.660
  EVAL.   E -0.319  0.354  1.000  0.407    E -0.292  0.573  1.000  0.566    E -0.087  0.599  1.000  0.534
 HEADL.   H -0.228  0.576  0.407  1.000    H -0.354  0.685  0.566  1.000    H -0.258  0.660  0.534  1.000

          M 11.696 13.696 16.429  8.893    M 11.732 11.554 14.964  6.893    M 11.661 11.768 15.732  7.982
          S  0.564  4.989  2.154  5.535    S  0.694  5.328  2.598  4.988    S  0.662  5.247  2.496  5.786

                         ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=165)

                                               A      V      E      H
                                           F  0.172  2.844  5.024  1.859
                                           P  0.864  0.059  0.008  0.157

HEADLINES              N =  56                            N =  56                            N =  56
 FORM B
              A      V      E      H           A      V      E      H           A      V      E      H
   AGE    A  1.000 -0.089 -0.064 -0.064    A  1.000 -0.216 -0.329 -0.138    A  1.000 -0.606 -0.402 -0.530
 VOCAB.   V -0.089  1.000  0.350  0.601    V -0.216  1.000  0.558  0.513    V -0.606  1.000  0.669  0.751
  EVAL.   E -0.064  0.350  1.000  0.390    E -0.329  0.558  1.000  0.536    E -0.402  0.669  1.000  0.598
 HEADL.   H -0.064  0.601  0.390  1.000    H -0.138  0.513  0.536  1.000    H -0.530  0.751  0.598  1.000

          M 11.607 12.946 15.679  8.839    M 11.750 12.357 15.804  9.036    M 11.518 13.125 15.143  9.732
          S  0.646  4.741  3.036  5.006    S  0.605  4.650  2.489  4.825    S  0.681  5.176  2.682  4.857

                         ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=165)

                                               A      V      E      H
                                           F  1.813  0.376  0.899  0.505
                                           P  0.164  0.694  0.588  0.610

                         ANOVAS BETWEEN HEADLINE FORMS (DF1=1, DF2=110)

              A      V      E      H           A      V      E      H           A      V      E      H
          F  0.594  0.653  2.233  0.003    F  0.018  0.710  2.993  5.243    F  1.241  1.865  1.422  2.951
          P  0.551  0.574  0.134  1.000    P  0.990  0.594  0.083  0.023    P  0.267  0.171  0.234  0.085
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TABLE 5.6 INTERCORRELATIONS OF SCORES FOR E*H FORM COMBINATIONS, WITH ANOVAS AMONG FORMS (CONTINUED)

                                       LEVEL 2, GRADE 9

                    EVALUATION FORM A                EVALUATION FORM B                 EVALUATION FORM C

HEADLINES                N =  45                          N =  45                           N =  45
 FORM A
              A       V       E       H          A       V       E       H          A       V       E       H
   AGE    A  1.000  -0.352  -0.285  -0.299   A  1.000  -0.124  -0.115  -0.200   A  1.000  -0.255  -0.175  -0.087
  VOCAB.  V -0.352   1.000   0.516   0.537   V -0.124   1.000   0.623   0.677   V -0.255   1.000   0.746   0.548
   EVAL.  E -0.285   0.516   1.000   0.702   E -0.115   0.623   1.000   0.682   E -0.175   0.746   1.000   0.575
  HEADL.  H -0.299   0.537   0.702   1.000   H -0.200   0.677   0.682   1.000   H -0.087   0.548   0.575   1.000

          M 14.711  18.156  17.511  11.933   M 14.600  18.133  17.089  12.622   M 14.667  17.378  16.778  11.022
          S  0.654   4.733   2.306   4.977   S  0.574   5.508   2.148   4.999   S  0.558   4.744   2.812   5.779

                              ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=132)

                                              A       V       E       H
                                         F  0.386   0.344   1.002   1.022
                                         P  0.687   0.717   0.371   0.364

HEADLINES                N =  45                          N =  45                           N =  45
 FORM B
              A       V       E       H          A       V       E       H          A       V       E       H
   AGE    A  1.000  -0.432  -0.322  -0.477   A  1.000  -0.078   0.103  -0.044   A  1.000  -0.236  -0.098  -0.352
  VOCAB.  V -0.432   1.000   0.497   0.567   V -0.078   1.000   0.370   0.488   V -0.236   1.000   0.432   0.700
   EVAL.  E -0.322   0.497   1.000   0.651   E  0.103   0.370   1.000   0.439   E -0.098   0.432   1.000   0.483
  HEADL.  H -0.477   0.567   0.651   1.000   H -0.044   0.488   0.439   1.000   H -0.352   0.700   0.483   1.000

          M 14.800  18.400  17.311  11.044   M 14.622  18.422  16.889  12.400   M 14.600  18.267  16.667  11.800
          S  0.653   3.969   2.764   6.179   S  0.607   4.155   2.183   4.292   S  0.712   3.991   2.231   5.647

                              ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=132)

                                              A       V       E       H
                                         F  1.219   0.019   0.814   0.688
                                         P  0.298   1.000   0.551   0.509

                              ANOVAS BETWEEN HEADLINE FORMS (DF1=1, DF2= 88)

              A       V       E       H          A       V       E       H          A       V       E       H
         F  0.411   0.069   0.136   0.552    F  0.033   0.077   0.188   0.050    F  0.243   0.905   0.042   0.408
         P  0.530   0.845   0.728   0.534    P  0.952   0.825   0.674   0.897    P  0.630   0.656   0.922   0.532
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TABLE 5.6 INTERCORRELATIONS OF SCORES FOR E*H FORM COMBINATIONS, WITH ANOVAS AMONG FORMS (CONTINUED)

                                          LEVEL 3, GRADE 6

                 EVALUATION FORM A                  EVALUATION FORM B                  EVALUATION FORM C

HEADLINES               N =  54                            N =  54                            N =  54
 FORM A
                  A      V      E      H           A      V      E      H           A      V      E      H
     AGE     A  1.000 -0.357 -0.200 -0.376     A  1.000 -0.327 -0.161 -0.214     A  1.000 -0.188 -0.402 -0.400
   VOCAB.    V -0.357  1.000  0.595  0.719     V -0.327  1.000  0.643  0.811     V -0.188  1.000  0.396  0.575
    EVAL.    E -0.200  0.595  1.000  0.484     E -0.161  0.643  1.000  0.690     E -0.402  0.396  1.000  0.480
   HEADL.    H -0.376  0.719  0.484  1.000     H -0.214  0.811  0.690  1.000     H -0.400  0.575  0.480  1.000

             M 11.741 12.056 13.926  6.463     M 11.593 12.667 13.204  6.333     M 11.833 11.981 14.389  6.370
             S  0.644  5.652  2.879  4.250     S  0.562  5.484  2.971  4.880     S  0.660  4.953  2.758  5.034

                              ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=159)

                                                  A      V      E      H
                                               F  2.009  0.260  2.294  0.011
                                               P  0.135  0.782  0.102  1.000

HEADLINES               N =  54                            N =  54                            N =  54
 FORM B
                  A      V      E      H           A      V      E      H           A      V      E      H
     AGE     A  1.000 -0.307 -0.251 -0.325     A  1.000 -0.329 -0.270 -0.229     A  1.000 -0.038  0.032 -0.168
   VOCAB.    V -0.307  1.000  0.609  0.733     V -0.329  1.000  0.657  0.735     V -0.038  1.000  0.550  0.813
    EVAL.    E -0.251  0.609  1.000  0.624     E -0.270  0.657  1.000  0.666     E  0.032  0.550  1.000  0.477
   HEADL.    H -0.325  0.733  0.624  1.000     H -0.229  0.735  0.666  1.000     H -0.168  0.813  0.477  1.000

             M 11.7C4 11.611 14.278  6.370     M 11.611 13.278 12.833  6.407     M 11.833 11.704 14.426  5.722
             S  0.627  5.400  3.003  4.006     S  0.650  4.949  3.425  4.161     S  0.739  5.769  3.040  4.102

                              ANOVA AMONG EVALUATION FORMS (DF1=2, DF2=159)

                                                  A      V      E      H
                                               F  1.456  1.604  4.104  0.470
                                               P  0.235  0.202  0.018  0.632

                              ANOVAS BETWEEN HEADLINE FORMS (DF1=1, DF2=106)

                  A      V      E      H           A      V      E      H           A      V      E      H
           F    0.085  0.171  0.379  0.013     F  0.031  0.363  0.354  0.007     F  0.0    0.071  0.004  0.528
           P    0.8C7  0.689  0.546  0.997     P  0.957  0.555  0.561  1.000     P  1.000  0.840  1.000  0.524
```

TABLE 5.6 INTERCORRELATIONS OF SCORES FOR E*H FORM COMBINATIONS, WITH ANOVAS AMONG FORMS (CONTINUED)

```
                                           LEVEL 3, GRADE 9

                 EVALUATION FORM A                 EVALUATION FORM B                 EVALUATION FORM C

HEADLINES              N =  47                          N =  47                          N =  47
 FORM A
              A      V      E      H          A      V      E      H          A      V      E      H
    AGE  A  1.000 -0.490 -0.390 -0.398    A  1.000 -0.286 -0.260 -0.153    A  1.000 -0.430 -0.118 -0.277
 VOCAB.  V -0.490  1.000  0.563  0.602    V -0.286  1.000  0.489  0.589    V -0.430  1.000  0.650  0.693
  EVAL.  E -0.390  0.563  1.000  0.742    E -0.260  0.489  1.000  0.460    E -0.118  0.650  1.000  0.569
 HEADL.  H -0.398  0.602  0.742  1.000    H -0.153  0.589  0.460  1.000    H -0.277  0.693  0.569  1.000

         M 14.489 17.340 15.532 10.170    M 14.596 19.085 15.638 10.489    M 14.511 19.043 16.106 11.489
         S  0.648  4.678  2.880  5.183    S  0.571  3.701  2.273  4.073    S  0.614  4.672  3.082  5.222

                          ANOVA AMONG EVALUATICN FORMS (DF1=2, DF2=138)

                                              A      V      E      H
                                          F  0.393  2.381  0.562  0.924
                                          P  0.682  0.094  0.577  0.598

HEADLINES              N =  47                          N =  47                          N =  47
 FORM B
              A      V      E      H          A      V      E      H          A      V      E      H
    AGE  A  1.000 -0.155 -0.145 -0.123    A  1.000 -0.427 -0.277 -0.230    A  1.000 -0.118 -0.184 -0.055
 VOCAB.  V -0.155  1.000  0.670  0.569    V -0.427  1.000  0.506  0.632    V -0.118  1.000  0.314  0.509
  EVAL.  E -0.145  0.670  1.000  0.526    E -0.277  0.506  1.000  0.447    E -0.184  0.314  1.000  0.391
 HEADL.  H -0.123  0.569  0.526  1.000    H -0.230  0.632  0.447  1.000    H -0.055  0.509  0.391  1.000

         M 14.681 18.277 16.319  8.936    M 14.638 17.809 15.766  8.830    M 14.489 17.362 15.851  9.383
         S  0.550  3.956  2.730  4.402    S  0.727  5.022  2.425  5.071    S  0.614  5.072  2.744  3.659

                          ANOVA AMONG EVALUATICN FORMS (DF1=2, DF2=138)

                                              A      V      E      H
                                          F  1.158  0.434  0.587  0.203
                                          P  0.317  0.655  0.563  0.832

                          ANCVAS BETWEEN HEADLINE FORMS (DF1=1, DF2= 92)

              A      V      E      H          A      V      E      H          A      V      E      H
         F  2.328  1.074  1.811  1.515    F  0.098  1.926  0.068  2.995    F  0.020  2.733  0.176  5.020
         P  0.127  0.303  0.178  0.219    P  0.783  0.165  0.847  0.083    P  0.986  0.098  0.684  0.026
```

TABLE 5.7 COMPARISCNS BETWEEN GRADES, SENTENCE EVALUATION AND HEADLINES TESTS

LEVEL 1

		SENT. EVALUATION TEST--PROP'S. CORRECT									HEADLINES TEST--PROP'S. CORRECT						
		GRADE 3			GRADE 6							GRADE 3		GRADE 6			
		H	L	A	H	L	A	Z(DIFF.)				H	L	H	L	Z(DIFF.)	
WORD	ITEM NO.	N 138	N 138	N 138	N 80	N 80	N 80	H	L	A	ITEM NO.	N 207	N 207	N 120	N 120	H	L
AGE	2	0.797	0.391	0.826	0.912	0.800	0.975	2.24*	5.84***	3.27**	17	0.575	0.087	0.775	0.483	3.65***	8.18***
BROKE	9	0.855	0.761	0.833	0.987	0.825	0.962	3.19**	1.11	2.84**	6	0.198	0.560	0.425	0.792	4.40***	4.21***
CHANCE	7	0.761	0.384	0.659	0.912	0.525	0.813	2.79**	2.02*	2.41*	1	0.357	0.106	0.758	0.325	6.99***	4.89***
END	14	0.812	0.855	0.746	0.975	0.938	0.925	3.48***	1.84	3.25**	10	0.469	0.343	0.717	0.833	4.36***	8.56***
FILL	3	0.804	0.355	0.804	0.925	0.175	0.950	2.40*	-2.83**	2.97**	18	0.256	0.213	0.442	0.450	3.46***	4.52***
FREE	6	0.761	0.572	0.797	0.925	0.862	0.938	3.05**	4.42***	2.79**	21	0.333	0.425	0.750	0.658	7.27***	4.07***
GAME	4	0.812	0.145	0.862	1.000	0.250	0.912	4.14***	1.93	1.10	19	0.217	0.048	0.442	0.275	4.27***	5.85***
GRAVE	13	0.783	0.210	0.638	0.950	0.400	0.775	3.28**	3.01**	2.11*	5	0.454	0.193	0.792	0.583	5.96***	7.20***
LINE	8	0.884	0.804	0.797	0.975	0.900	0.925	2.35*	1.85	2.51*	11	0.198	0.068	0.475	0.333	5.27***	6.24***
LIVE	11	0.826	0.746	0.804	0.962	0.787	0.912	2.95**	0.69	2.12*	3	0.498	0.251	0.750	0.425	4.47***	3.26**
MILL	17	0.710	0.210	0.826	0.925	0.300	0.912	3.75***	1.49	1.76	7	0.111	0.063	0.375	0.308	5.67***	5.95***
NAME	19	0.906	0.848	0.797	1.000	0.938	0.938	2.83**	1.97*	2.79**	9	0.159	0.106	0.367	0.483	4.26***	7.64***
PAGE	18	0.862	0.297	0.797	0.962	0.512	0.925	2.37*	3.16**	2.51*	8	0.319	0.111	0.708	0.317	6.81***	4.60***
PRIVATE	10	0.775	0.522	0.710	0.912	0.775	0.862	2.57*	3.70***	2.56*	2	0.164	0.145	0.342	0.625	3.68***	8.96***
SEASON	12	0.841	0.623	0.507	0.938	0.800	0.637	2.09*	2.72**	1.87	4	0.145	0.415	0.392	0.825	5.07***	7.20***
SIGHT	20	0.812	0.406	0.804	0.912	0.575	0.925	2.00*	2.41*	2.40*	15	0.304	0.507	0.750	0.783	7.78***	4.93***
SKIRT	15	0.819	0.159	0.681	0.925	0.137	0.938	2.16*	-0.44	4.37***	12	0.309	0.005	0.525	0.058	3.86***	3.02**
STRANGER	5	0.797	0.362	0.783	0.950	0.438	0.875	3.07**	1.10	1.70	20	0.121	0.058	0.433	0.417	5.42***	7.98***
TAKE	1	0.826	0.232	0.826	0.925	0.200	0.962	2.04*	-0.55	2.95**	16	0.483	0.329	0.642	0.683	2.77**	6.21***
TRAIN	16	0.826	0.616	0.696	0.887	0.800	0.837	1.22	2.82**	2.32*	14	0.179	0.517	0.450	0.792	5.28***	4.93***
WISH	21	0.812	0.855	0.688	0.887	0.962	0.938	1.47	2.49*	4.28***	13	0.440	0.179	0.725	0.517	4.99***	6.41***

TABLE 5.7 COMPARISCNS BETWEEN GRADES, SENTENCE EVALUATION AND HEADLINES TESTS (CONTINUED)

LEVEL 2

	SENT. EVALUATION TEST--PROP'S. CORRECT										HEADLINES TEST--PROP'S. CORRECT						
		GRADE 6			GRADE 9							GRADE 6		GRADE 9			
		H	L	A	H	L	A	Z(DIFF.)				H	L	H	L	Z(DIFF.)	
	ITEM	N	N	N	N	N	N				ITEM	N	N	N	N		
WORD	NO.	112	112	112	90	90	90	H	L	A	NO.	168	168	135	135	H	L
APPEAL	5	0.688	0.723	0.705	0.733	0.867	0.822	0.71	2.48*	1.93	18	0.042	0.440	0.296	0.674	6.09***	4.06***
BOTHER	13	0.875	0.473	0.902	0.889	0.422	0.944	0.30	-0.72	1.12	5	0.494	0.393	0.726	0.570	4.09***	3.08**
BUBBLE	16	0.857	0.741	0.813	0.911	0.856	0.722	1.18	1.99*	-1.52	21	0.351	0.696	0.311	0.830	-0.74	2.68**
BUY	20	0.938	0.768	0.893	0.967	0.878	0.933	0.95	2.01*	1.00	12	0.244	0.768	0.526	0.830	5.05***	1.32
CHANNEL	2	0.777	0.339	0.830	0.911	0.533	0.789	2.57*	2.77**	-0.75	15	0.310	0.107	0.474	0.304	2.93**	4.29***
DRUG	18	0.946	0.670	0.920	1.000	0.867	0.956	2.23*	3.25**	1.03	10	0.619	0.369	0.600	0.504	-0.34	2.35*
HEDGE	12	0.929	0.393	0.875	0.878	0.400	0.867	-1.23	0.10	-0.18	4	0.595	0.042	0.681	0.207	1.55	4.49***
HUM	6	0.866	0.786	0.830	0.933	0.856	0.867	1.56	1.28	0.71	19	0.637	0.577	0.630	0.748	-0.13	3.10**
INCENSE	1	0.536	0.536	0.607	0.822	0.322	0.644	4.28***	-3.04**	0.54	14	0.256	0.065	0.481	0.163	4.07***	2.71**
KNOT	3	0.759	0.813	0.884	0.800	0.778	0.933	0.70	-0.61	1.20	16	0.506	0.655	0.622	0.830	2.03*	3.42***
MOTOR	17	0.920	0.161	0.857	0.944	0.322	0.900	0.69	2.70**	0.92	9	0.476	0.446	0.704	0.578	3.98***	2.27*
PLANE	9	0.955	0.286	0.857	0.967	0.544	0.822	0.41	3.73***	-0.68	8	0.524	0.113	0.733	0.407	3.73***	5.93***
POLL	14	0.536	0.214	0.884	0.889	0.367	0.844	5.41***	2.39*	-0.82	6	0.095	0.119	0.481	0.474	7.55***	6.86***
POLICE	19	0.920	0.438	0.929	1.000	0.789	0.933	2.75**	5.05***	0.13	11	0.643	0.500	0.726	0.652	1.54	2.65**
SCARE	7	0.777	0.732	0.875	0.889	0.800	0.911	2.09*	1.13	0.82	1	0.815	0.268	0.778	0.393	-0.81	2.31*
SNAKE	11	0.955	0.339	0.902	0.956	0.556	0.922	0.01	3.08**	0.51	3	0.381	0.631	0.615	0.763	4.05***	2.47*
SPEAR	15	0.938	0.875	0.625	0.989	0.856	0.778	1.86	-0.40	2.34*	20	0.196	0.256	0.230	0.267	0.70	0.21
SWAMP	8	0.938	0.464	0.723	0.978	0.689	0.689	1.38	3.20**	-0.53	7	0.327	0.268	0.481	0.326	2.73**	1.10
TWINE	4	0.830	0.554	0.804	0.911	0.522	0.867	1.68	-0.44	1.19	17	0.482	0.542	0.644	0.770	2.83**	4.13***
WORRY	10	0.857	0.598	0.866	0.856	0.856	0.833	-0.03	4.02***	-0.65	2	0.202	0.446	0.511	0.548	5.64***	1.76
YELL	21	0.884	0.777	0.938	0.978	0.933	0.933	2.53*	3.07**	-0.12	13	0.685	0.542	0.733	0.785	0.93	4.42***

TABLE 5.7 COMPARISONS BETWEEN GRADES, SENTENCE EVALUATION AND HEADLINES TESTS (CONTINUED)

LEVEL 3

		SENT. EVALUATION TEST--PROP'S. CORRECT										HEADLINES TEST--PROP'S. CORRECT					
		GRADE 6			GRADE 9							GRADE 6		GRADE 9			
		H	L	A	H	L	A	Z(DIFF.)				H	L	H	L	Z(DIFF.)	
	ITEM	N	N	N	N	N	N				ITEM	N	N	N	N		
WORD	NO.	108	108	108	94	94	94	H	L	A	NO.	162	162	141	141	H	L
ANIMATE	4	0.824	0.556	0.630	0.936	0.553	0.798	2.41*	-0.03	2.62**	11	0.173	0.012	0.397	0.028	4.35***	1.00
BLOUSE	15	0.537	0.333	0.769	0.723	0.372	0.862	2.73**	0.58	1.69	21	0.327	0.525	0.383	0.631	1.01	1.87
BUFFALO	14	0.926	0.278	0.648	0.947	0.426	0.745	0.60	2.20*	1.48	16	0.284	0.080	0.447	0.227	2.95**	3.58***
ECLIPSE	2	0.870	0.296	0.676	0.936	0.319	0.745	1.56	0.35	1.07	9	0.420	0.247	0.596	0.418	3.06**	3.18**
EPIDEMIC	6	0.796	0.528	0.694	0.936	0.670	0.755	2.87**	2.06*	0.96	17	0.494	0.074	0.745	0.206	4.47***	3.34***
HOIST	16	0.602	0.759	0.463	0.787	0.787	0.681	2.84**	0.47	3.12**	5	0.426	0.241	0.610	0.496	3.20**	4.63***
IMPRESS	17	0.861	0.556	0.731	0.936	0.298	0.755	1.74	-3.68***	0.39	6	0.401	0.346	0.638	0.482	4.12***	2.41*
MELLOW	12	0.602	0.491	0.750	0.915	0.755	0.851	5.11***	3.85***	1.78	14	0.327	0.210	0.418	0.582	1.64	6.64***
NIBBLE	20	0.852	0.731	0.648	0.926	0.777	0.883	1.64	0.74	3.88***	19	0.290	0.549	0.397	0.645	1.96*	1.70
NOVEL	7	0.852	0.620	0.676	0.947	0.702	0.883	2.21*	1.22	3.50***	1	0.512	0.302	0.823	0.546	5.68***	4.29***
OUTRAGE	19	0.694	0.722	0.398	0.840	0.691	0.447	2.43*	-0.48	0.70	18	0.130	0.228	0.362	0.496	4.73***	4.87***
OVERTURN	9	0.833	0.778	0.620	0.883	0.872	0.713	1.00	1.75	1.39	3	0.586	0.469	0.681	0.496	1.70	0.47
PARROT	11	0.926	0.269	0.741	0.947	0.298	0.840	0.60	0.46	1.73	13	0.611	0.136	0.809	0.284	3.75***	3.18**
PENSION	8	0.657	0.593	0.593	0.915	0.670	0.702	4.39***	1.14	1.62	2	0.080	0.056	0.390	0.248	6.45***	4.75***
PLANK	1	0.907	0.435	0.880	0.957	0.511	0.830	1.40	1.07	-1.01	8	0.500	0.210	0.504	0.454	0.06	4.53***
PRESSURE	18	0.769	0.620	0.667	0.947	0.915	0.617	3.55***	4.87***	-0.73	7	0.346	0.099	0.475	0.298	2.29*	4.39***
PRIMARY	21	0.750	0.546	0.796	0.894	0.926	0.840	2.63**	6.01***	0.81	20	0.123	0.235	0.496	0.574	7.09***	6.04***
SLEIGH	3	0.769	0.481	0.667	0.883	0.574	0.755	2.12*	1.32	1.38	10	0.414	0.321	0.574	0.447	2.79**	2.25*
SPLINTER	10	0.907	0.426	0.722	0.957	0.585	0.745	1.40	2.26*	0.36	4	0.660	0.099	0.716	0.220	1.04	2.90**
STRUCTURE	13	0.880	0.657	0.537	0.904	0.649	0.649	0.56	-0.13	1.61	15	0.463	0.086	0.695	0.128	4.07***	1.17
TARRY	5	0.500	0.546	0.685	0.713	0.596	0.734	3.08**	0.71	0.76	12	0.327	0.136	0.574	0.128	4.32***	-0.21

Table 5.8

Distribution of z-values from the Evaluation and Headlines Test, by Level and Grade

Evaluation Test

	Level 1		Level 2		Level 3		
	Gr. 3	Gr. 6	Gr. 6	Gr. 9	Gr. 6	Gr. 9	Total
+, $p \leq .001$	15	12	13	13	11	13	77
+, $.001 < p \leq .01$					2	2	4
+, $.01 < p \leq .05$	1	4	2	1	2	1	11
+, $p > .05$	3	4	4	6	3	4	24
−, $p > .05$	2	1	2		2	1	8
−, $.01 < p \leq .05$				1	1		2
−, $.001 < p \leq .01$							0
−, $p \leq .001$							0
	21	21	21	21	21	21	126

Headlines Test

	Level 1		Level 2		Level 3		
	Gr. 3	Gr. 6	Gr. 6	Gr. 9	Gr. 6	Gr. 9	Total
+, $p \leq .001$	9	7	6	4	12	8	46
+, $.001 < p \leq .01$	2	1	2	3		4	12
+, $.01 < p \leq .05$	1	1		1	2	2	7
+, $p > .05$	4	3	4	3	3	2	19
−, $p > .05$	1	4	3	3		1	12
−, $.01 < p \leq .05$		1		2	1	1	5
−, $.001 < p \leq .01$			1	1	1	1	4
−, $p \leq .001$	4	4	5	4	2	2	21
	21	21	21	21	21	21	126

Table 5.9

Data Grouped by Whether Semantic Differences Were Associated with Differences in Grammatical Functions

Level 1

EVALUATION

	Proportions Correct						r_{bis} with Vocabulary			
"Same" meanings in H and L grammatical functions										
	Gr. 3			Gr. 6			Gr. 3		Gr. 6	
	H	L	Z	H	L	Z	H	L	H	L
AGE	.797	.391	6.86***	.912	.800	2.03*	.579	.036	.576	.248
END	.812	.855	-0.97	.975	.938	1.16	.578	.516	.652	.077
FILL	.804	.355	7.56***	.925	.175	9.53***	.561	-.134	.405	-.006
LINE	.884	.804	1.83	.975	.900	1.96	.301	.492	.204	.338
NAME	.906	.848	1.47	1.000	.938	2.27*	.312	.320	--	.144
SIGHT	.812	.406	6.91***	.912	.575	4.89***	.382	-.080	.150	.132
TAKE	.826	.232	9.89***	.925	.200	9.24***	.487	-.076	.405	.220
WISH	.812	.855	-0.97	.887	.962	-1.80	.194	.540	.442	.087
"Different" meanings in H and L grammatical functions										
BROKE	.855	.761	1.99*	.987	.825	3.53***	.457	.249	.588	.194
CHANCE	.761	.384	6.33***	.912	.525	5.45***	.149	-.220	.567	.240
FREE	.761	.572	3.32***	.925	.862	1.28	.525	.216	.422	.335
GAME	.812	.145	11.09***	1.000	.250	9.80***	.395	-.246	--	.374
GRAVE	.783	.210	9.51***	.950	.400	7.43***	.503	-.160	.139	.431
LIVE	.826	.746	1.62	.962	.787	3.35***	.391	.062	.396	.297
MILL	.710	.210	8.33***	.925	.300	8.11***	.516	-.315	.272	.333
PAGE	.862	.297	9.51***	.962	.512	6.47***	.385	.016	.365	.391
PRIVATE	.775	.522	4.41***	.912	.775	2.40*	.096	.329	.551	.295
SEASON	.841	.623	4.08***	.938	.800	2.58*	.421	.162	.474	.395
SKIRT	.819	.159	10.96***	.925	.137	9.98***	.565	-.459	.444	-.191
STRANGER	.797	.362	7.32***	.950	.438	7.03***	.467	-.214	.304	.191
TRAIN	.826	.616	3.89***	.887	.800	1.52	.060	.095	.149	.149

Table 5.9 (contd.)

Level 2

EVALUATION

	Proportions Correct						r_{bis} with Vocabulary			
"Same" meanings in H and L grammatical functions										
	Gr. 6			Gr. 9			Gr. 6		Gr. 9	
	H	L	Z	H	L	Z	H	L	H	L
BOTHER	.875	.473	6.41***	.889	.422	6.59***	.288	-.101	.225	-.038
BUBBLE	.857	.741	2.17*	.911	.856	1.16	.520	.058	.527	.454
BUY	.938	.768	3.58***	.967	.878	2.23*	.436	.145	-.074	.236
CHANNEL	.777	.339	6.59***	.911	.533	5.66***	.339	.024	.456	.196
DRUG	.946	.670	5.26***	1.000	.867	3.59***	.815	.396	--	.291
HUM	.866	.786	1.59	.933	.856	1.70	.225	.371	.253	.046
KNOT	.759	.813	-0.98	.800	.778	0.37	.375	.380	.763	.486
POLL	.536	.214	4.97***	.889	.367	7.25***	.034	-.260	.466	-.075
SCARE	.777	.732	0.78	.889	.800	1.65	.632	.170	.642	.254
SNAKE	.955	.339	9.65***	.956	.556	6.24***	.239	-.006	.600	.093
SPEAR	.938	.875	1.60	.989	.856	3.34***	.808	.209	.409	.386
WORRY	.857	.598	4.35***	.856	.856	0.0	.471	.267	.375	.106
YELL	.884	.777	2.14*	.978	.933	1.45	.486	.257	-.146	.546
"Different" meanings in H and L grammatical functions										
APPEAL*	.688	.723	-0.59	.733	.867	-2.24*	.104	.169	.220	.346
HEDGE	.929	.393	8.47***	.878	.400	6.67***	.196	-.007	.214	.042
INCENSE	.536	.536	0.0	.822	.322	6.78***	.289	-.194	.531	-.273
MOTOR	.920	.161	11.40***	.944	.322	8.66***	.478	-.494	.214	.057
PLANE	.955	.286	10.33***	.967	.544	6.59***	.336	-.136	.148	.131
POLICE	.920	.438	7.73***	1.000	.789	4.61***	.639	-.008	--	.537
SWAMP	.938	.464	7.73***	.978	.689	5.20***	.445	.153	.549	.301
TWINE	.830	.554	4.49***	.911	.522	5.79***	.466	-.171	.339	-.122

[*] Both "H" and "L" usages were nouns, but with different meanings.

Table 5.9 (contd.)

Level 3

EVALUATION

	Proportions Correct						r_{bis} with Vocabulary			
"Same" meanings in H and L grammatical functions										
	Gr. 6			Gr. 9			Gr. 6		Gr. 9	
	H	L	Z	H	L	Z	H	L	H	L
ECLIPSE	.870	.296	8.56***	.936	.319	8.75***	.433	-.309	.663	-.006
EPIDEMIC	.796	.528	4.17***	.936	.670	4.59***	.521	.267	.377	.122
HOIST	.602	.759	-2.48*	.787	.787	0.0	.368	.254	.547	.607
IMPRESS	.861	.556	4.94***	.936	.298	9.00***	.587	-.585	-.102	-.646
MELLOW	.602	.491	1.64	.915	.755	2.95**	.220	.304	.105	.131
NIBBLE	.852	.731	2.18*	.926	.777	2.87**	.412	.275	.312	.237
OUTRAGE	.694	.722	-0.45	.840	.691	2.41*	.189	.053	.493	.439
OVERTURN	.833	.778	1.03	.883	.872	0.22	.029	.281	.636	.141
PARROT	.926	.269	9.85***	.947	.298	9.18***	.367	.192	.430	-.100
PENSION	.657	.593	0.98	.915	.670	4.14***	.376	.244	.270	-.147
PLANK	.907	.435	7.39***	.957	.511	6.93***	.565	.010	.660	-.021
PRESSURE	.769	.620	2.36*	.947	.915	0.86	.661	.071	.458	.478
SLEIGH	.769	.481	4.36***	.883	.574	4.76***	.332	-.060	.169	.102
SPLINTER	.907	.426	7.51***	.957	.585	6.08***	.360	.233	.363	.423
STRUCTURE	.880	.657	3.87***	.904	.649	4.20***	.517	-.065	.380	-.106
"Different" meanings in H and L grammatical functions										
ANIMATE	.824	.556	4.27***	.936	.553	6.02***	.532	.093	.659	-.044
BLOUSE	.537	.333	3.02**	.723	.372	4.84***	.104	.055	.540	.039
BUFFALO	.926	.278	9.73***	.947	.426	7.70***	.486	.173	.069	.153
NOVEL	.852	.620	3.86***	.947	.702	4.41***	.313	.179	.543	.122
PRIMARY	.750	.546	3.13**	.894	.926	-0.76	.372	.186	.750	.053
TARRY	.500	.546	-0.68	.713	.596	1.69	.144	.299	.211	-.040

Table 5.9 (contd.)

Level 1

HEADLINES

	Proportions Correct						r_{bis} with Vocabulary			
"Same" meanings in H and L grammatical functions										
	Gr. 3			Gr. 6			Gr. 3		Gr. 6	
	H	L	Z	H	L	Z	H	L	H	L
AGE	.575	.087	10.55***	.775	.483	4.68***	.486	.558	.403	.620
END	.469	.343	2.60**	.717	.833	-2.16*	.478	.474	.614	.515
FILL	.256	.213	1.04	.442	.450	-0.13	.473	.459	.247	.418
LINE	.198	.068	3.91***	.475	.333	2.24*	.466	.204	.491	.504
NAME	.159	.106	1.59	.367	.483	-1.83	.308	.266	.549	.485
SIGHT	.304	.507	-4.20***	.750	.783	-0.61	.476	.477	.538	.474
TAKE	.483	.329	3.20**	.642	.683	-0.68	.222	.314	.528	.528
WISH	.440	.179	5.74***	.725	.517	3.33***	.448	.299	.428	.625
"Different" meanings in H and L grammatical functions										
BROKE	.198	.560	-7.60***	.425	.792	-5.82***	.338	.423	.393	.378
CHANCE	.357	.106	6.06***	.758	.325	6.74***	.316	.263	.387	.628
FREE	.333	.425	-1.92	.750	.658	1.56	.474	.486	.402	.550
GAME	.217	.048	5.07***	.442	.275	2.69**	.395	.240	.474	.334
GRAVE	.454	.193	5.67***	.792	.583	3.48***	.615	.423	.556	.467
LIVE	.498	.251	5.18***	.750	.425	5.11***	.259	.379	.508	.380
MILL	.111	.063	1.74	.375	.308	1.09	.246	.243	.595	.422
PAGE	.319	.111	5.14***	.708	.317	6.07***	.470	.339	.658	.467
PRIVATE	.164	.145	0.54	.342	.625	-4.39***	.290	.394	.290	.631
SEASON	.145	.415	-6.13***	.392	.825	-6.88***	.329	.553	.576	.688
SKIRT	.309	.005	8.51***	.525	.058	7.95***	.409	.255	.412	.572
STRANGER	.121	.058	2.24*	.433	.417	0.26	.328	.566	.454	.501
TRAIN	.179	.517	-7.22***	.450	.792	-5.45***	.284	.518	.507	.456

Table 5.9 (contd.)

Level 2

HEADLINES

	Proportions Correct						r_{bis} with Vocabulary			
"Same" meanings in H and L grammatical functions										
	Gr. 6			Gr. 9			Gr. 6		Gr. 9	
	H	L	Z	H	L	Z	H	L	H	L
BOTHER	.494	.393	1.87	.726	.570	2.68**	.607	.475	.460	.561
BUBBLE	.351	.696	-6.34***	.311	.830	-8.61***	.301	.604	.237	.398
BUY	.244	.768	-9.60***	.526	.830	-5.34***	.395	.546	.467	.544
CHANNEL	.310	.107	4.57***	.474	.304	2.87**	.545	.168	.167	.462
DRUG	.619	.369	4.58***	.600	.504	1.59	.410	.463	.449	.390
HUM	.637	.577	1.12	.630	.748	-2.10*	.317	.634	.389	.435
KNOT	.506	.655	-2.76**	.622	.830	-3.82***	.454	.617	.528	.456
POLL	.095	.119	-0.71	.481	.474	0.12	.510	.453	.601	.598
SCARE	.815	.268	10.07***	.778	.393	6.42***	.568	.307	.393	.149
SNAKE	.381	.631	-4.58***	.615	.763	-2.63**	.599	.532	.622	.306
SPEAR	.196	.256	-1.30	.230	.267	-0.70	.174	.403	.260	.184
WORRY	.202	.446	-4.78***	.511	.548	-0.61	.218	.601	.386	.403
YELL	.685	.542	2.69**	.733	.785	-1.00	.526	.466	.302	.539
"Different" meanings in H and L grammatical functions										
APPEAL	.042	.440	-8.55***	.296	.674	-6.21***	.439	.614	.476	.570
HEDGE	.595	.042	10.89***	.681	.207	7.84***	.565	.515	.296	.521
INCENSE	.256	.065	4.75***	.481	.163	5.60***	.569	.260	.471	.186
MOTOR	.476	.446	0.55	.704	.578	2.16*	.645	.498	.386	.369
PLANE	.524	.113	8.08***	.733	.407	5.41***	.595	.259	.561	.520
POLICE	.643	.500	2.65**	.726	.652	1.31	.437	.420	.492	.534
SWAMP	.327	.268	1.19	.481	.326	2.60**	.516	.204	.522	.237
TWINE	.482	.542	-1.09	.644	.770	-2.27*	.526	.628	.549	.552

Table 5.9 (contd.)

Level 3

HEADLINES

	Proportions Correct						r_{bis} with Vocabulary			
"Same" meanings in H and L grammatical functions										
	Gr. 6			Gr. 9			Gr. 6		Gr. 9	
	H	L	Z	H	L	Z	H	L	H	L
ECLIPSE	.420	.247	3.30***	.596	.418	2.98**	.499	.453	.399	.292
EPIDEMIC	.494	.074	8.38***	.745	.206	9.06**	.605	.257	.687	.328
HOIST	.426	.241	3.54***	.610	.496	1.92	.653	.533	.438	.518
IMPRESS	.401	.346	1.03	.638	.482	2.64**	.460	.172	.323	.126
MELLOW	.327	.210	2.38*	.418	.582	-2.74**	.571	.704	.238	.497
NIBBLE	.290	.549	-4.73***	.397	.645	-4.17***	.382	.592	.341	.447
OUTRAGE	.130	.228	-2.32*	.362	.496	-2.29*	.423	.456	.410	.554
OVERTURN	.586	.469	2.11*	.681	.496	3.15**	.465	.462	.272	.071
PARROT	.611	.136	8.84***	.809	.284	8.85***	.547	.487	.637	.445
PENSION	.080	.056	0.88	.390	.248	2.55*	.501	.632	.237	.414
PLANK	.500	.210	5.46***	.504	.454	0.83	.415	.469	.200	.506
PRESSURE	.346	.099	5.35***	.475	.298	3.06**	.634	.391	.337	.250
SLEIGH	.414	.321	1.73	.574	.447	2.14*	.675	.519	.429	.446
SPLINTER	.660	.099	10.42***	.716	.220	8.35***	.607	.345	.525	.225
STRUCTURE	.463	.086	7.59***	.695	.128	9.68***	.634	.564	.565	.182
"Different" meanings in H and L grammatical functions										
ANIMATE	.173	.012	4.98***	.397	.028	7.57***	.481	-.014	.519	.384
BLOUSE	.327	.525	-3.90***	.383	.631	-4.17***	.508	.458	.314	.260
BUFFALO	.284	.080	4.75***	.447	.227	3.91***	.559	.537	.521	.253
NOVEL	.512	.302	3.84***	.823	.546	5.00***	.571	.406	.411	.062
PRIMARY	.123	.235	-2.61**	.496	.574	-1.31	.558	.504	.423	.413
TARRY	.327	.136	4.08***	.574	.128	7.86***	.467	.236	.612	.314

Chapter VI

Conclusions, Discussion, and Recommendations

The Incidence of MGF (Multiple Grammatical Function) Words in English

Even without any special investigation such as the present one, it would be obvious to anyone who gives thought to the matter that there are large numbers of words in the English language that (in either spoken or printed forms) can function in more than one grammatical part of speech without any change of form. In this respect English appears to be somewhat different from many other well-known languages, such as French, German, Spanish, or Russian, in which it is usually the case that a word presented in isolation can be immediately recognized by a native speaker as belonging to one and only one part of speech or grammatical function.

For the purposes of the present study, it was nevertheless felt desirable to obtain more precise information on the incidence of MGF words in English. A 5 percent random sample of the first 10,000 words according to frequency in the Thorndike (1932) word-list was examined; of these 500 words, about 43 percent were found to be grammatically ambiguous. A simple extrapolation suggests that about 4300 words out of the most common 10,000 words in English are grammatically ambiguous in the sense that they (i.e., their "base" or "dictionary entry" forms) may occur in more than one part of speech. Closer examination of the 5 percent sample disclosed that grammatical ambiguity had higher occurrence among the words of higher frequency. About 72 percent of the 1000 most common words, it may be estimated, may occur in more than one part of speech.

These data do not take account of the possible multiple meanings of words. Independently of whether a word is grammatically ambiguous or unambiguous, it may have a number of different senses. It is well known that multiple meaning (polysemy) is more likely to occur among the more frequent words. To some unknown extent, our results may reflect the fact that high frequency words are more likely to have multiple meanings. The focus of this study, however, was on multiple grammatical function, or what may be called polysyntagmy. It was noteworthy that our studies found many words that could occur in more than one grammatical function but had essentially only one basic sense.

The psycholinguistic significance of polysyntagmy

These findings have several important implications regarding the nature of competence in the English language.

First, they imply that competence in English involves not only a knowledge of the basic meanings of words but also a knowledge of the possible grammatical functions of those words, and the limits of those functions. For example, it is a part of the usual competence of a native speaker of English to know that words such as NAME, END, and FREE may be used in more than one grammatical function: NAME and END as nouns and verbs, and FREE as either a verb or an adjective. But the native speaker must also know that there are constraints on the grammatical usages of words: he must know that LOUD and SORE, for example, cannot normally be used as verbs, for example.

Second, these findings imply that in the production or comprehension of messages, the language user draws on his knowledge of the grammatical functions of words. In the normal understanding of a sentence, the language user has to process the words in terms of his knowledge of their possible grammatical functions. If a newspaper reader, for example, were to see a headline such as FRENCH SHIP SAILS TONIGHT he could interpret it either as meaning "The ship owned by the French is going to depart tonight" or as "The French people are shipping their sails tonight" on the basis of his knowledge that ship and sails could be construed as either nouns or verbs, and that French could be taken as either an adjective or a noun. Of course, he might use other processes to determine which of these readings is the more likely interpretation in a particular context. But he could not even arrive at any reading of the sentence without using his knowledge of the possible grammatical functions of the words. It would thus seem important, in the study of sentence comprehension, to assemble data on native speakers' knowledge about the grammatical usages of words.

We know that in the domain of vocabulary there is considerable variation among native speakers in the extent of their knowledge. It is likely, therefore, that the various grammatical usages of individual words may be regarded as separate and independent phenomena that may be differentially known by a native speaker. A speaker who knows that a given word may occur in a certain part of speech will not necessarily know that it may also occur in another part of speech, or that it cannot occur in still another part of speech. If this is so, we may expect speakers to differ in their ability to handle different grammatical usages in either the comprehension or the production of verbal messages. Also, we should expect that as children grow in language competence, they would gradually improve in their knowledge of specific grammatical usages.

The present study was designed to investigate growth in children's knowledge of grammatical usages of words.

The role of frequency

In the introductory paragraphs above, we spoke of grammatical ambiguity in terms of whether a word "may" occur in more than one part of speech. The concept of frequency implied in that statement was that of "all-or-none." That is, a word would be regarded as grammatically ambiguous if, according to linguistic convention, that word could be used acceptably in more than one part of speech, even if its use in one of those parts of speech were extremely rare. For example, the word ARE may be regarded as grammatically ambiguous because along with its extremely common use as a form of the verb BE one can also encounter, although very rarely, its use as a noun, denoting a unit of area in the metric system.

Generally, the frequency with which some phenomenon occurs in large samples of language provides some guide as to the likelihood that speakers of the language will be familiar with that phenomenon. An important feature of the earlier phases of this investigation, therefore, was an effort to obtain information on the relative frequencies with which the words in a representative sample of common words were used in different grammatical functions. Obtaining reliable information of this sort was found to be quite difficult, because the usual word-frequency counts do not honor distinctions of either meaning or grammatical usage. The Semantic Count developed by Lorge and Thorndike (1938) was found to be of some use, however, and was one of the bases for assigning provisional "MGF vectors" to a sample of 1220 words that were identified as being more or less common in English. These MGF vectors were intended as estimates of the parts in ten (perdecems) with which a given word would be used in each of several grammatical functions (generally, noun, verb, or adjective) in a large corpus of speech or writing in English. These MGF vectors are listed in Appendix A.

The collection of normative data on individuals' grammatical perceptions of MGF words

It was felt desirable, however, to obtain another kind of information on grammatical usages of words, namely, the usages that individuals would make of words most directly and spontaneously when presented with those words in isolation. It may be assumed that when a person is presented with a word in isolation, he will perceive it as being in a certain grammatical part of speech; given enough time, he may perceive it as possibly being in more than one part of speech, but his most immediate response to the word would presumably indicate the usage which is most dominant for him in a hierarchy of habits. A simple way of detecting the person's grammatical perception of a word is to present it to him in isolation and ask him to make up a sentence illustrating the word; the investigator can then, on inspection of the sentence, usually determine the part of speech in which it was used, and inferentially, the part of speech in which it was perceived. By collecting data of this sort from representative samples of respondents it is possible to assemble normative data on the frequency with which given words are perceived in various parts of speech.

Chapter IV of this report describes a study in which such normative data were collected concerning 240 MGF words. School-age children in grades 3, 6, and 9 contributed these data. By the use of sizable samples, the reliability of these data was reasonably well assured, except in the case of words for which only small numbers of students were able to supply illustrative sentences. The extensive normative data thus assembled are presented in tables accompanying Chapter IV.

A pilot experiment, described in Chapter III, provided evidence that virtually excluded the possibility that these normative data were in any way biased by "priming" or "set" effects whereby the grammatical perception or "parsing" of a given word would be influenced by the response to an immediately preceding word in the list.

In general, the normative data tended to show good correspondence with the provisional "MGF vectors" described above. The two sets of data exhibit some discrepancies, however. One possible reason for discrepancy is that the MGF vector data were estimated mainly from counts of words in adult reading material, whereas the normative data represent responses of children in grades 3, 6, and 9 that reflect their own perceptions and experiences with the words. Also, frequency of usage would not be expected necessarily to correspond exactly with grammatical perceptions of words presented in isolation.

The normative data also included information on the tendency of children to use a word in two different parts of speech when asked to write two successive sentences using the word in different ways. It was found that this tendency was highly correlated with what may be called the "balance" of the MGF vector, i.e., the extent to which it reflected more or less equally frequent multiple grammatical usages. Here, the "empirical" MGF vector was used as the data base: when several grammatical usages were likely to appear with approximately equal frequencies in the first sentences written by the children in the sample, there was a greater tendency for them to change grammatical part of speech in a second sentence than when the grammatical usages were concentrated in only one part of speech.

These data unfortunately do not indicate to what extent the respondents were aware of the change of grammatical function or deliberately made changes in grammatical function; their changing of part of speech in a second sentence might have occurred solely as a kind of chance, unconscious process. This interpretation is likely, in fact, in view of the finding that few children made more than a very small number (two or three) changes of grammatical function over the whole set of 26 or 27 words with which they were presented.

Children's knowledge and comprehension of unusual grammatical functions of words

The preliminary investigations described above operated to set the stage for the main study that was the goal of the project as a whole: a study of the extent to which children at several grade levels were able to comprehend words used in unusual grammatical functions.

From the normative data on children's perceptions of grammatical functions, 63 words were chosen for further study. These 63 words represented a wide range of difficulty and of types of grammatical ambiguity; their common characteristic, however, was that at least one of the grammatical usages was infrequently found in the normative data, i.e., the word was seldom used in one of the parts of speech when the respondents were asked to use the word in a sentence.

These words were employed in constructing two types of instruments to be used for assessing children's knowledge and comprehension of the respective grammatical usages. One of these instruments, the Sentence Evaluation test, presented a word in a sentence in either a "high frequency," a "low frequency," or an "anomalous" usage, the child being asked to evaluate whether the word was correctly used or not. The rationale for this instrument was that if a child marked a "high frequency" or a "low frequency" usage as "correct," but marked an "anomalous" usage as "incorrect," he was more likely to be able to understand the word. Actually, because of the way in which the forms of this test were constructed, any given child was presented with only one of the three usages--"high," "low," or "anomalous." The relative degrees to which the "high frequency" and "low frequency" usages were comprehended by the group were assessed by comparing the responses of different subgroups, one subgroup having been presented with the "high frequency" usage and the other having been presented with the "low frequency" usage. The "anomalous" items were, in effect, "fillers" designed to give the respondents opportunity to find "incorrect" usages.

The other type of instrument was a so-called Headlines test in which the word (in either a "high frequency" or a "low frequency" grammatical usage) was presented in the context of an imaginary "headline" such as might appear in a newspaper; the child was asked to write a paraphrase of the headline without using the key word, which was underlined. Comprehension of the word was assessed by judging the child's success in writing a paraphrase that showed his understanding of the word.

There were, at each of three levels of difficulty, three forms of the Sentence Evaluation test and two forms of the Headlines test; in this way, different random samples of children responded to the different usages of the words. By comparing the proportions of correct or acceptable responses to the various usages, it was possible to investigate the main question for which this study was designed: do school-age children have more difficulty in comprehending or using words in their less frequent grammatical functions?

To the question stated in just this way, the data gave a very clear answer: for about nine out of ten of the words studied, children do have significantly more difficulty with the less frequent grammatical functions, i.e., with the functions that they are less likely to use when asked to make sentences illustrating the words.

It was also clear that there were significant developmental trends: with increasing age and grade, children tended to have less and less difficulty with the infrequent grammatical usages. Nevertheless, even at grade 9, there were many words for which it was the case that the children had significantly more difficulty with the less frequent grammatical usages than with the more frequent ones.

These conclusions are based on the results from both of the tests, which tended to agree with each other. Nevertheless, the results were clearer and more striking from the Sentence Evaluation test, probably because this was a test that required only a simple judgment from the child as to whether the word was used correctly or not, whereas the response to the Headlines test was much more demanding, in that it required the child to write a paraphrase of a sentence without using the word whose comprehension was being tested. The proportions of correct responses to the Evaluation test were in general much higher than the corresponding proportions in the Headlines test.

It was necessary, however, to assess the possible role of semantic factors as explaining either part or all of the differences in proportions of correct responses. For some of the words it was evident, even in advance, that semantic differences were correlated with differences in grammatical function. For example, the meaning of HEDGE as a noun ("a row of bushes") has only a remote, metaphorical connection with its meaning as a verb in "to hedge one's statements."

The results were classified on the basis of whether the different grammatical functions actually used in the Sentence Evaluation and Headlines tests had associated semantic differences. When this was done, it could be seen that there were three classes of results:

(1) *Words for which there appeared to be no essential semantic differences correlated with differences in grammatical function, and for which there was little evidence of significant differences in correctness of response*: There were relatively few cases of this sort, mainly restricted to highly familiar, high frequency items. These were as follows: BROKE (vb., adj.); END (n., vb.); LINE (n., vb.); NAME (n., vb.); WISH (n., vb.); HUM (n., vb.); KNOT (n., vb., both referring to an interlacement of rope, cord, etc.); SCARE (n., vb.); SPEAR (n., vb.); YELL (n., vb.); and OVERTURN (n., vb.).

(2) *Words for which there appeared to be, as before, no essential semantic differences correlated with differences in grammatical function, but for which there were rather consistent significant differences in correctness of response favoring the "high frequency" grammatical function*: Following are the cases of this type; the "low frequency" usage is underlined and unabbreviated: AGE (n., *verb*); FILL (vb., *noun*); SIGHT (n., *verb*); TAKE (vb., *noun*); BOTHER (vb., *noun*); BUBBLE (n., *verb*); CHANNEL (n., *verb*); DRUG (n., *verb*); BUY (vb., *noun*); POLL (n., *verb*); WORRY (n., *verb*); EPIDEMIC (n., *adjective*); HOIST (n., *verb*); MELLOW (adj., *verb*); NIBBLE (vb., *noun*); OUTRAGE (n., *verb*); PENSION (n., *verb*); PLANK (n., *verb*); PRESSURE (n., *verb*); SLEIGH (n., *verb*); SPLINTER (n., *verb*); STRUCTURE (n., *verb*). These may be considered cases that

confirm the general conclusion of this study that frequency or familiarity of grammatical function per se is often a critical factor in comprehension of language.

(3) Words for which important semantic differences were correlated with differences in grammatical function, and for which there were rather consistent differences in correctness of response favoring the "high frequency" grammatical function: CHANCE (n., verb); FREE (adj., verb); GAME (n., adjective); GRAVE (n., adjective); LIVE (vb., adjective); MILL (n., verb); PAGE (n., verb); PRIVATE (adj., noun); SEASON (n., verb); SKIRT (n., verb); STRANGER (n., adjective); TRAIN (n., verb); HEDGE (n., verb); INCENSE (n., verb); MOTOR (n., verb); PLANE (n., verb); POLICE (n., verb); SNAKE (n., verb); SWAMP (n., verb); TWINE (n., verb); ANIMATE (vb., adjective); BLOUSE (n., verb); BUFFALO (n., verb); ECLIPSE (n., verb); IMPRESS (vb., noun); NOVEL (n., adjective); PARROT (n., verb); PRIMARY (adj., noun); TARRY (vb., adjective).

To summarize, there were 11 words in class (1), 22 words in class (2), and 29 words in class (3). (One word, APPEAL, does not appear in any of these classes because, through an oversight in the construction of the Sentence Evaluation test, the grammatical function was the same [noun--but with two different senses] in the two sentences that were intended to contrast the "high frequency" [verb] and "low frequency" [noun] usages.)

As suggested above, class (2) is the critical one for this study. If only a negligible number of words had appeared in this class, one would be inclined to reject the hypothesis that grammatical function per se (as opposed to semantic content) makes a difference in children's comprehension of MGF words. With the appearance of at least 22 words in this class, however, there is considerable assurance that grammatical function can and does make a difference. Inspection of these results suggests that there are many words whose less frequent grammatical usages are less likely to be contained in the lexical-grammatical knowledge of children in the grade range 3 to 9.

The presence of a considerable number of words in class (3) suggests that differences in semantic content can often be critical factors along with grammatical factors. This study was not designed to determine the effect of semantic factors with grammatical usage held constant, since it was felt that previous research had already shown, to an adequate degree, that such effects could be important. The only purpose of including such words in this study was to demonstrate that grammatical differences could accompany semantic differences and that the less frequent usages were more likely to pose difficulties in comprehension.

There were, to be sure, 11 words in class (1)--words seemingly like those of class (2) in their semantic and grammatical characteristics but for which "high frequency" and "low frequency" usages were handled about equally well. However, most of these were words whose overall frequencies are themselves quite high.

Since this study could include only a relatively small number of MGF words in the final instruments, and since the 63 words selected represented a rather arbitrary sample, it is difficult to make generalizations beyond this small sample of words. Presumably, similar results would have been obtained if all 240 words studied in the normative data could have been employed in the main study, but even so, these 240 words are themselves a rather arbitrary sample of all the MGF words that might have been included. At any rate, no claim can be made that the frequencies with which the 63 words fell into result-classes (1), (2), and (3) give any indications as to the "true" probabilities with which MGF words in general would fall into these classes. In any event, the results would depend partly on the particular items and sentences constructed to illustrate the words.

We can only repeat at this point the finding that a significant number (22 out of 63, or 35%) of the words studied fell into class (2)--in which difficulty correlated with grammatical function even in the absence of correlated semantic differences, a finding which leads to the conclusion that grammatical function *per se* can be an important factor in children's lexical knowledge or competence.

From a practical teaching standpoint, this means that *the less frequent grammatical functions of words deserve special attention in the English language arts curriculum*, even when there appear to be no important semantic differences correlated with differences in grammatical function. It may also imply that *students need to have their attention drawn to the fact that many words can have different grammatical functions even without change of essential meaning*. Perhaps it would be useful to design special teaching units to convey this fact and to illustrate it. The general results of the present study imply that many of the difficulties that school-age children have in understanding English prose are connected with the fact that they do not possess lexical-grammatical knowledge about the less usual grammatical functions of the many words in English that can appear in more than one grammatical function.

The type of item constructed for the Sentence Evaluation test could readily be used in practical teaching situations, since such items are relatively easy to construct. Teachers could draw words from the lists of MGF words in Appendix A and construct sentences for high frequency, low frequency, and anomalous usages. Although very little attention has been paid in this report to the results for the "anomalous" usages, it may be worth pointing out here that (depending on the grade level and the difficulty of the words) "anomalous" usages were marked as "correct" by around 10 to 15 percent of the children; obviously this represents misinformation or incorrect knowledge on the part of these children.

Remarks on the development of lexicogrammatical knowledge

The introductory chapter of this report included a brief discussion of possible processes in the development of the child's lexicogrammatical knowledge. From the little evidence bearing on this matter in the literature of early child language acquisition, it may be speculated that the following stages occur:

(1) At the earliest stages of language acquisition (roughly, at the "one-word sentence stage"), words are used in terms of their semantic content, with no reference to their grammatical functions.

(2) As the child begins to put words in grammatical constructions, he uses words in the grammatical functions appropriate to those constructions (insofar as they can be determined), but this is mainly because their semantic content fits those constructions. For example, words used as nouns are primarily names of persons or concrete objects; words used as verbs are primarily words for actions; words used as

adjectives are primarily words for certain tangible or readily perceivable qualities. The grammatical functions in which given words are used are severely limited, most words being used in only one grammatical function. Words which are grammatically ambiguous in the adult vocabulary (in the sense defined in the present study) are used almost exclusively in their "high frequency" usages. Nevertheless, the child at this stage is remarkably adept at detecting the grammatical function of a new word from its grammatical and semantic context.

(3) As the child gains more virtuosity in grammatical constructions, he begins to experiment with new grammatical functions of the words he already knows, occasionally using nouns as verbs, or verbs as nouns, for example. This is done on the basis of the semantic content of the words, however; when a noun is used as a verb, for example, it is implied that some action occurs with reference to the denotatum of the word as a noun.

(4) When this "transfer" process results in a usage acceptable in adult speech, this usage tends to become confirmed and strengthened; we may say that the child has acquired lexicogrammatical knowledge with respect to a given word such that the word is recognized to have more than one grammatical function. On the other hand, when the transfer process results in unacceptable usages, those usages tend to weaken and gradually drop out of the child's repertoire. In such cases the grammatical information the child acquires about a word limits its use to particular grammatical functions.

(5) In later language development (up to grade 3, let us say), the child learns the grammatical information associated with the more

frequent words; on the basis of frequency of exposure, he learns the "high frequency" grammatical usages much more than the "low frequency" ones. Most words are for him "grammatically unambiguous," i.e., they belong to only one part of speech or form-class. He has, as it were, learned not to invent grammatical usages that he has not heard in the speech of others. The words that are for him grammatically ambiguous are those in which two or more grammatical functions occur with high frequency in adult or peer language. These words may be fairly numerous, but they are still a small part of the child's total vocabulary at this stage.

The present study was concerned with the development of lexicogrammatical knowledge from grade 3 to grade 9 (corresponding roughly to ages of 8 to 14). While it was concerned mainly with the acquisition of "unusual" or "low frequency" grammatical usages, the normative data of Chapter IV clearly support the idea advanced in the previous paragraph that even by grade 3 the average child knows and uses a substantial number of words in two or more grammatical functions, but that these are in nearly every case words in which the two or more functions are of relatively high frequency in the adult vocabulary. On the other hand, the data clearly show that grade 3 children are far from adult (or even grade 9) standards in their knowledge of "low frequency" grammatical usages. From grade 3 to grade 9 there are developmental trends whereby children grow in their knowledge of low-frequency grammatical usages, but this growth is quite gradual. The average child at grade 9 still has much to learn before approaching educated-adult standards.

There is little or no evidence in our data of any sudden upturn in the child's ability to handle multiple grammatical usages. That is, it seems not to be the case that children acquire, at some point, a greater facility in handling MGF words _in general_. On the contrary, the data suggest that the acquisition of lexicogrammatical knowledge is a process whereby the child must learn specific grammatical usages of words _item by item_. Since there is so much to learn--all the multiple grammatical functions of literally thousands of words--the process must necessarily appear gradual when viewed as a whole. We draw this conclusion from the fact that the increments in percentages of correct responses from one grade level to another (as shown in Table 5.7) are generally quite moderate.

The present data are limited, however, by the fact that they are of a cross-sectional nature and pertain to groups, not individuals. If there are indeed "sudden" upturns in the ability of individual children to deal with multiple grammatical functions in general, they would be masked by the pooling of data from large numbers of children.

A priori it seems unlikely that individual children would exhibit rapid and generalized development of an ability to handle multiple grammatical functions, simply because the adult norms regarding MGF words are extremely varied and subtle. It is difficult to construct linguistic rules governing what grammatical functions are acceptable for given words. As with many other aspects of vocabulary knowledge, lexicogrammatical knowledge must be acquired bit by bit and with reference to specific items.

The main implication of this study is that lexicogrammatical knowledge--the knowledge of the acceptable grammatical functions of specific words--is a large component in language competence and that it is acquired slowly and, as it were, painfully. Children's deficiencies in lexicogrammatical knowledge undoubtedly account for a substantial part of their difficulties in understanding language. This is a fact that has apparently received grossly insufficient attention in the English language curriculum.

It may be pointed out, also, that standard word counts that do not recognize distinctions of meaning or grammatical function are practically useless in identifying low frequency meanings or grammatical functions that need to be taught if school-age children are to be brought to acceptable levels of the lexicogrammatical knowledge they need for using language effectively.

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APPENDIX A

A List of Grammatically Unambiguous (UGF) and Ambiguous (MGF) Words

Given first is the complete list of 1230 words that were involved in this study, in alphabetical order. Each word was assigned a number; the order of these numbers does not, however, correspond exactly to the alphabetical order because of certain cross-references that were controlled by the word numbers. Following each word is an indication of the sample (T, for Thorndike; H, for Harvard) from which each word was drawn. A few words, marked "<TH" were not in the original samples but were derived from those words; e.g., BUILDING was derived from BUILD but separately listed. Next are given the Dale ratings (D), the Thorndike Rank-Frequency Index (TH), the full MGF vector, the grammatical type, the Semantic Code (SMCO), and an indication of which chapters in this report contain further data concerning the word (3, 4, and/or 5). See Chapter II for further details.

The complete alphabetical list is followed by lists of

330 Grammatically Unambiguous Nouns,
147 Grammatically Unambiguous Verbs,
122 Grammatically Unambiguous Adjectives,
468 Noun-Verb Words,
64 Noun-Adjective Words,
23 Verb-Adjective Words,
52 Noun-Verb-Adjective Words.

COMPLETE ALPHABETICAL LIST

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
1	ABILITY	H	2	4B	10	0	0	0-0	N	0	--
2	ABLE	H	1	1B	0	0	10	0-0	A	0	--
3	ABOLISH	T	4	5A	0	10	0	0-0	V	0	--
4	ABSOLUTE	T	4	2B	-1	0	9	0-0	N,A	1	--
5	ABSURD	T	5	6	0	0	10	0-0	A	0	3
6	ACADEMIC	H	7	8	-1	0	9	0-0	N,A	1	--
7	ACCEPT	H	1	2A	0	10	0	0-0	V	0	--
8	ACCOMPLICE	T	5	10	10	0	0	0-0	N	0	--
9	ACCOMPLISH	H	3	2B	0	10	0	0-0	V	0	--
10	ACCORDING	T	5	2A	0	0	1	9-1	NVA*	1	--
11	ACCOUNT	H	1	1B	9	1	0	0-0	N,V	1	--
12	ACCUMULATE	T	4	8	0	10	0	0-0	V	0	--
13	ACHIEVE	H	3	4B	0	10	0	0-0	V	0	--
14	ACKNOWLEDGE	T	4	4A	-1	9	0	0-0	N,V	1	4
15	ACT	H	1	1B	3	7	0	0-0	N,V	1	--
16	ACTION	H	2	2B	10	0	0	0-0	N	0	--
17	ACTIVE	H	2	3B	-1	0	9	0-0	N,A	1	--
18	ACTIVITY	H	4	7	10	0	0	0-0	N	0	--
19	ACTUAL	H	3	2B	0	0	10	0-0	A	0	--
20	ADDITION	H	3	2B	10	0	0	0-0	N	0	--
21	ADDRESS	H	1	2A	5	5	0	0-0	N,V	2	--
22	ADEQUATE	H	5	8	0	0	10	0-0	A	0	--
23	ADJUST	H	3	6	0	10	0	0-0	V	0	--
24	ADMINISTRATION	H	3	5A	10	0	0	0-0	N	0	--
25	ADORE	T	4	4B	0	10	0	0-0	V	0	--
26	ADVANCE	H	2	2A	1	9	0	0-0	N,V	1	--
27	ADVANTAGE	H	4	2A	10	0	0	0-0	N	0	--
28	ADVERTISEMENT	T	7	7	10	0	0	0-0	N	0	--
29	ADVICE	H	2	2B	10	0	0	0-0	N	0	--
30	AFFAIR	H	4	2B	10	0	0	0-0	N	0	--
31	AFFECT	T	3	3A	1	9	0	0-0	N,V	1	4
32	AFFINITY	T	7	9	10	0	0	0-0	N	0	--
33	AFFORD	H	2	4A	0	10	0	0-0	V	0	--
34	AFRAID	H	1	1B	0	0	10	0-0	A	0	3
35	AFTERNOON	H	1	1B	10	0	0	0-0	N	0	--
36	AGE	T,H	1	1B	9	1	0	0-0	N,V	1	4,5
37	AGED	H	1	6	0	5	5	0-0	V,A	1	4
39	AGENCY	H	3	5B	10	0	0	0-0	N	0	--
40	AGGRAVATE	T	5	7	0	10	0	0-0	V	0	--
41	AGGRESSIVE	H	7	9	0	0	10	0-0	A	0	--
42	AGREE	H	1	2A	0	10	0	0-0	V	0	--
43	AGREEMENT	T,H	3	5A	10	0	0	0-0	N	0	--
44	AGRICULTURAL	H	3	4B	0	0	10	0-0	A	0	--
45	AID	H	1	2A	8	2	0	0-0	N,V	1	--
46	AIM	H	1	2B	7	3	0	0-0	N,V	1	--
47	AIR	H	1	1A	9	1	0	0-0	N,V	1	--
48	ALBUM	T	2	10	10	0	0	0-0	N	0	--
49	ALERT	T	3	8	3	-1	6	0-0	NVA	1	--
50	ALIVE	H	1	2A	0	0	10	0-0	A	0	--
51	ALLOW	H	1	1B	0	10	0	0-0	V	0	--
52	ALONE	H	1	1A	0	0	10	0-0	A	0	--
53	ALTERATION	T	4	7	10	0	0	0-0	N	0	--
54	AMATEUR	T	3	9	10	0	0	0-0	N	0	--
55	AMONG	T	1	1A	0	0	0	10-2	OT	0	--
56	AMOUNT	H	1	1B	8	2	0	0-0	N,V	1	--
57	ANCHOR	T	2	3B	6	4	0	0-0	N,V	1	4
58	ANGER	H	1	2A	8	2	0	0-0	N,V	1	--
59	ANGRY	H	1	2A	0	0	10	0-0	A	0	--
60	ANIMATE	T	7	6	0	9	1	0-0	V,A	1	3,4,5
61	ANSWER	H	1	1A	4	6	0	0-0	N,V	1	--
62	ANTICIPATE	T	5	7	0	10	0	0-0	V	0	--
63	ANXIETY	H	7	8	10	0	0	0-0	N	0	--
64	ANXIOUS	H	3	2B	0	0	10	0-0	A	0	--
65	APARTMENT	H	7	5A	10	0	0	0-0	N	0	--
66	APPARENT	H	4	4B	0	0	10	0-0	A	0	--
67	APPEAL	H	3	3A	5	5	0	0-0	N,V	1	4,5
68	APPEAR	H	1	1B	0	10	0	0-0	V	0	--
69	APPETITE	T	3	3B	10	0	0	0-0	N	0	--
70	APPLAUD	T	3	6	0	10	0	0-0	V	0	--
71	APPLY	T,H	3	2A	0	10	0	0-0	V	0	--
72	APPROACH	H	2	2A	3	7	0	0-0	N,V	1	--
73	AREA	H	4	3A	10	0	0	0-0	N	0	--
74	ARGUE	H	3	5B	0	10	0	0-0	V	0	--
75	ARGUMENT	H	3	3B	10	0	0	0-0	N	0	--
76	ARISE	T	1	3A	0	10	0	0-0	V	0	3
77	ARM	H	1	1A	9	1	0	0-0	N,V	4	--
78	ARMY	H	1	1B	10	0	0	0-0	N	0	--
79	AROMATIC	T	7	8	2	0	8	0-0	N,A	1	--
80	ARRANGE	H	3	2B	0	10	0	0-0	V	0	--
81	ARREST	H	2	4A	6	4	0	0-0	N,V	1	4
82	ARRIVE	H	1	1B	0	10	0	0-0	V	0	--
83	ARROW	H	1	2B	10	0	0	0-0	N	0	--
84	ASHORE	T	2	4A	0	0	0	10-1	OT	0	--
85	ASK	H	1	1A	0	10	0	0-0	V	0	--
86	ASKANCE	T	7	10	0	0	0	10-1	OT	0	--
87	ASPECT	H	4	5B	10	0	0	0-0	N	0	--
88	ASSIGNMENT	T	3	9	10	0	0	0-0	N	0	--
89	ASSISTANCE	H	3	4A	10	0	0	0-0	N	0	--
90	ASSOCIATE	H	3	3B	3	7	0	0-0	N,V	1	4
91	ASSOCIATION	H	4	4B	10	0	0	0-0	N	0	--
92	ASSUME	H	3	3B	0	10	0	0-0	V	0	--
93	ATTACK	H	1	2B	7	3	0	0-0	N,V	1	--
94	ATTEMPT	H	3	2A	6	4	0	0-0	N,V	1	--
95	ATTEND	H	1	1B	0	10	0	0-0	V	0	--
96	ATTENTION	H	1	2B	10	0	0	0-0	N	0	--
97	ATTIRE	T	6	4B	9	1	0	0-0	N,V	1	4
98	ATTITUDE	H	4	5B	10	0	0	0-0	N	0	--
99	AUNT	H	1	2A	10	0	0	0-0	N	0	--
100	AUTHORITY	H	4	2B	10	0	0	0-0	N	0	--
101	AUTO	T	1	5A	9	0	1	0-0	N,A	1	4

COMPLETE ALPHABETICAL LIST

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
102	AVAILABLE	T,H	4	8	0	0	10	0-0	A	0	--
103	AVERAGE	H	3	3A	3	1	6	0-0	NVA	1	--
104	AVERSE	T	7	9	0	0	10	0-0	A	0	--
105	AVOID	H	3	2B	0	10	0	0-0	V	0	--
106	AWARE	H	1	5B	0	0	10	0-0	A	0	--
107	AWFUL	H	1	2B	0	0	10	0-0	A	0	--
108	BABY	T,H	1	1B	8	1	1	0-0	NVA	1	4
109	BACK	H	1	1A	7	1	2	0-0	NVA	3	--
110	BAD	H	1	1A	-1	0	9	0-0	N,A	1	--
111	BADGER	T,H	4	7	9	1	0	0-0	N,V	4	3,4
112	BALANCE	T	3	2B	5	5	0	0-0	N,V	3	4
113	BAND	H	1	1B	9	1	0	0-0	N,V	3	--
114	BANK	H	1	1A	9	1	0	0-0	N,V	3	--
115	BANKER	T	1	5B	10	0	0	0-0	N	0	--
116	BAR	H	1	2A	7	3	0	0-0	N,V	3	--
117	BASEBALL	T	1	6	10	0	0	0-0	N	0	--
118	BASIC	H	3	11	-1	0	9	0-0	N,A	1	--
119	BASIS	H	4	4B	10	0	0	0-0	N	0	--
120	BASK	T	6	10	0	10	0	0-0	V	0	--
121	BE	T	1	1A	0	10	0	0-0	V	0	--
122	BEACH	H	1	2B	9	1	0	0-0	N,V	1	--
123	BEAR	H	1	1A	6	4	0	0-0	N,V	4	--
126	BEASTLY	T	7	8	0	0	10	0-0	A	0	--
127	BEAT	H	1	1B	1	8	1	0-0	NVA	3	--
128	BEAUTIFUL	H	1	1A	0	0	10	0-0	A	0	--
129	BEGIN	H	1	1A	0	10	0	0-0	V	0	--
130	BEHALF	T	5	4A	10	0	0	0-0	N	0	--
131	BELIEVE	H	1	1A	0	10	0	0-0	V	0	--
132	BELONG	H	1	1B	0	10	0	0-0	V	0	--
133	BELOVED	T	3	3B	0	0	10	0-0	A	0	--
134	BENEFIT	H	3	2B	7	3	0	0-0	N,V	1	--
135	BEREAVE	T	7	9	0	10	0	0-0	V	0	--
137	BESIDE	T	1	1A	0	0	0	10-3	DT	0	--
462	BEST	<TH	1	1A	0	1	9	0-0	V,A	1	--
461	BETTER	H	1	1A	0	1	5	4-1	NVA*	1	4
139	BIAS	T	7	6	9	-1	0	0-0	N,V	3	4
140	BIDE	T	7	6	0	10	0	0-0	V	0	--
141	BIG	H	1	1A	0	0	10	0-0	A	0	--
142	BILL	H	1	1B	9	1	0	0-0	N,V	3	--
143	BIRD	H	1	1A	9	-1	0	0-0	N,V	1	--
146	BIT	H	1	1B	9	1	0	0-0	N,V	4	--
145	BITE	H	1	2A	5	5	0	0-0	N,V	1	--
147	BLINDNESS	T	2	5B	10	0	0	0-0	N	0	--
148	BLOCK	H	1	2A	7	3	0	0-0	N,V	3	--
149	BLOOD	H	1	1B	9	-1	0	0-0	N,V	1	--
150	BLOSSOM	T	1	2A	8	2	0	0-0	N,V	1	3,4
151	BLOUSE	T	2	7	9	-1	0	0-0	N,V	1	4,5
152	BLOW	H	1	1A	3	7	0	0-0	N,V	2	--
153	BOARD	H	1	1B	8	2	0	0-0	N,V	2	--
154	BODY	H	1	1A	9	-1	0	0-0	N,V	1	--
155	BOILER	T	1	6	10	0	0	0-0	N	0	--
156	BONE	H	1	1B	9	-1	0	0-0	N,V	1	--
157	BONNY	T	7	10	0	0	10	0-0	A	0	--
158	BOOK	H	1	1A	9	1	0	0-0	N,V	3	--
159	BOOTY	T	7	7	10	0	0	0-0	N	0	--
124	BORE	H	2	2B	1	9	0	0-0	N,V	3	--
125	BORING	H	7	2B	1	2	7	0-0	NVA	3	--
162	BOTHER	H	1	4A	1	9	0	0-0	N,V	1	4,5
163	BOUNTIFUL	T	6	10	0	0	10	0-0	A	0	--
164	BOY	H	1	1A	10	0	0	0-0	N	0	--
165	BRACE	T	3	4B	3	7	0	0-0	N,V	3	4
166	BREAK	H	1	1B	1	9	0	0-0	N,V	1	--
168	BRIDGE	H	1	1B	9	1	0	0-0	N,V	1	--
169	BRING	H	1	1A	0	10	0	0-0	V	0	--
170	BRISK	T	3	5A	0	0	10	0-0	A	0	--
171	BROCADE	T	5	9	9	-1	0	0-0	N,V	1	--
167	BROKE	H	1	2B	0	9	1	0-0	V,A	1	4,5
173	BROTHER	H	1	1A	10	0	0	0-0	N	0	--
174	BROW	T	6	2B	10	0	0	0-0	N	0	--
175	BUBBLE	T	1	3A	7	3	0	0-0	N,V	1	4,5
176	BUFFALO	H	1	6	9	-1	0	0-0	N,V	1	4,5
177	BUILD	T,H	1	1A	1	9	0	0-0	N,V	1	--
178	BUILDING	<TH	1	1B	10	0	0	0-0	N	0	--
180	BURNER	T	2	8	10	0	0	0-0	N	0	3
181	BUSTLE	T	5	7	6	4	0	0-0	N,V	4	4
182	BUY	H	1	3A	1	9	0	0-0	N,V	1	4,5
183	CAMEL	T	1	4B	10	0	0	0-0	N	0	3
184	CAMP	T,H	1	2A	7	2	-1	0-0	NVA	1	4
185	CAN	H	1	1A	1	9	0	0-0	N,V	3	--
186	CAPRICIOUS	T	7	10	0	0	10	0-0	A	0	--
187	CAR	H	1	1B	10	0	0	0-0	N	0	--
188	CARCASS	T	5	8	10	0	0	0-0	N	0	--
189	CARD	H	1	2A	9	1	0	0-0	N,V	2	--
190	CARDINAL	T	3	6	7	0	3	0-0	N,A	3	3,4
191	CARE	H	1	1A	5	5	0	0-0	N,V	1	--
192	CAREER	H	3	4B	9	-1	0	0-0	N,V	1	4
193	CARRIER	T	3	5A	10	0	0	0-0	N	0	--
194	CARRY	H	1	1A	0	10	0	0-0	V	0	--
195	CAST	H	0	2A	2	8	0	0-0	N,V	3	--
196	CAT	H	1	2A	9	-1	0	0-0	N,V	1	--
197	CATCH	H	1	1B	1	9	0	0-0	N,V	1	--
198	CATTLE	H	1	2A	10	0	0	0-0	N	0	--
199	CAUSE	H	1	1A	4	6	0	0-0	N,V	3	--
200	CAVE	H	1	2B	9	1	0	0-0	N,V	1	--
201	CAVITY	T	3	7	10	0	0	0-0	N	0	--
202	CELL	T	1	3A	9	-1	0	0-0	N,V	3	4
203	CENTER	H	1	1B	7	3	0	0-0	N,V	1	--
204	CERTIFY	T	4	10	0	10	0	0-0	V	0	--
205	CHANCE	T,H	1	1B	8	1	1	0-0	NVA	1	4,5
206	CHANGE	H	1	1A	5	5	0	0-0	N,V	3	--

COMPLETE ALPHABETICAL LIST

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
207	CHANNEL	T	3	3B	9	1	0	0-0	N,V	1	4,5
208	CHAPTER	H	3	4A	9	-1	0	0-0	N,V	1	4
209	CHARACTER	H	4	2A	10	0	0	0-0	N	0	--
210	CHART	T	1	5B	9	1	0	0-0	N,V	1	3,4
211	CHECK	H	1	2A	5	5	0	0-0	N,V	3	--
212	CHECKED	H	7	2A	0	8	2	0-0	V,A	3	--
214	CHILD	H	1	1A	10	0	0	0-0	N	0	--
215	CHILLY	T	1	8	0	0	10	0-0	A	0	3
216	CHISEL	T	2	6	4	6	0	0-0	N,V	1	3,4
217	CHOCOLATE	T	1	4A	9	0	-1	0-0	N,A	1	4
218	CHOOSE	H	1	1B	0	10	0	0-0	V	0	--
219	CHURCH	H	1	1A	9	-1	0	0-0	N,V	1	--
220	CIRCULATE	T	4	8	0	10	0	0-0	V	0	--
221	CITIZEN	H	1	2B	10	0	0	0-0	N	0	--
222	CITY	T,H	1	1A	10	0	0	0-0	N	0	--
223	CIVIC	T	5	9	0	0	10	0-0	A	0	--
224	CLAY	T	1	2B	10	0	0	0-0	N	0	--
225	CLEAR	H	1	1A	1	3	6	0-0	NVA	1	--
226	CLENCH	T	3	9	2	8	0	0-0	N,V	1	--
227	CLIMB	H	1	2A	1	9	0	0-0	N,V	1	--
228	CLOSE	H	1	1A	1	3	6	0-0	NVA	1	--
229	CLOTHE (S)	H	4	1B	9	1	0	0-0	N,V	1	--
230	CLOWN	T	1	7	9	-1	0	0-0	N,V	1	4
231	CLUB	H	1	2B	9	1	0	0-0	N,V	3	--
232	COINCIDENCE	T	4	9	10	0	0	0-0	N	0	--
233	COLLEGE	H	1	2A	10	0	0	0-0	N	0	--
234	COLOR	H	1	1A	7	2	1	0-0	NVA	1	--
235	COMMAND	T	2	1B	4	6	0	0-0	N,V	1	4
236	COMMANDER	T	2	4B	10	0	0	0-0	N	0	--
237	COMMENT	H	3	6	7	3	0	0-0	N,V	1	4
238	COMPETITION	T	4	6	10	0	0	0-0	N	0	3
239	COMPLAINT	T	3	4A	10	0	0	0-0	N	0	--
240	COMPLEXITY	T	6	10	10	0	0	0-0	N	0	--
241	CONCERN	H	3	2B	3	7	0	0-0	N,V	3	--
242	CONDEMN	T	4	3B	0	10	0	0-0	V	0	--
243	CONDITION	H	3	1B	8	1	1	0-0	NVA	1	--
244	CONFIDANT	T	4	9	10	0	0	0-0	N	0	--
245	CONFRONT	T	5	10	0	10	0	0-0	V	0	--
246	CONFUSE	H	3	5A	0	10	0	0-0	V	0	--
247	CONGRESS	H	3	2B	10	0	0	0-0	N	0	--
248	CONNECTION	H	3	3B	10	0	0	0-0	N	0	--
249	CONSIST	T	3	2B	0	10	0	0-0	V	0	--
250	CONSIDER	H	3	2A	0	10	0	0-0	V	0	--
251	CONSONANT	T	7	8	3	0	7	0-0	N,A	4	--
252	CONSTITUTE	T	6	5A	0	10	0	0-0	V	0	--
253	CONTACT	H	3	7	9	1	0	0-0	N,V	1	--
254	CONTINUE	H	2	2A	0	10	0	0-0	V	0	--
255	CONTRIBUTION	T	3	7	10	0	0	0-0	N	0	--
256	CONTROL	H	3	2B	6	4	0	0-0	N,V	1	--
257	CONVERSATION	H	3	3A	10	0	0	0-0	N	0	--
258	CONVENTION	H	3	4A	10	0	0	0-0	N	0	--
259	CONVINCE	H	2	3B	0	10	0	0-0	V	0	--
260	COOK	H	1	1B	2	8	0	0-0	N,V	1	--
261	COPY	T	1	2A	8	2	0	0-0	N,V	1	4
262	CORNER	H	1	1B	9	1	0	0-0	N,V	1	--
263	COSTUME	T	3	5B	9	1	0	0-0	N,V	1	4
264	COUNSELLOR	T	4	8	10	0	0	0-0	N	0	--
265	COUNTRY	T	1	1A	10	0	0	0-0	N	0	3
266	COUPLE	H	2	2B	9	1	0	0-0	N,V	1	--
267	COURAGE	H	3	2B	10	0	0	0-0	N	0	--
268	COURAGEOUS	T	3	6	0	0	10	0-0	A	0	--
269	COURT	H	1	1B	8	2	0	0-0	N,V	4	--
270	COUSIN	T	1	2A	10	0	0	0-0	N	0	3
271	COW	H	1	1B	9	1	0	0-0	N,V	4	--
272	CRAFTY	T	5	8	0	0	10	0-0	A	0	--
273	CREATE	H	3	2B	0	10	0	0-0	V	0	--
274	CROUCH	T	3	5B	1	9	0	0-0	N,V	1	4
275	CROWD	T	1	1B	7	3	0	0-0	N,V	1	4
276	CRY	H	1	1B	2	8	0	0-0	N,V	1	--
277	CURDLE	T	5	10	0	10	0	0-0	V	0	--
278	CURE	H	1	2B	2	8	0	0-0	N,V	3	--
279	CUT	H	1	1A	2	7	1	0-0	NVA	1	--
280	CUTLERY	T	5	10	10	0	0	0-0	N	0	--
281	DAGGER	T	3	6	10	0	0	0-0	N	0	--
282	DAUGHTER	H	1	1B	10	0	0	0-0	N	0	--
283	DAWN	H	1	2A	7	3	0	0-0	N,V	1	--
284	DAY	H	1	1A	10	0	0	0-0	N	0	--
285	DAZZLE	T	3	5A	1	9	0	0-0	N,V	1	3,4
286	DEAD	H	1	1A	0	0	10	0-0	A	0	--
287	DEADLOCK	T	7	9	10	0	0	0-0	N	0	--
288	DEAL	H	1	1B	7	3	0	0-0	N,V	3	--
289	DEATH	H	1	1A	10	0	0	0-0	N	0	--
290	DECIDE	H	1	1B	0	10	0	0-0	V	0	--
291	DECISION	H	3	4A	10	0	0	0-0	N	0	--
292	DECK	T	1	2B	8	2	0	0-0	N,V	3	4
293	DEEP	H	1	1A	-1	0	9	0-0	N,A	1	--
294	DEFENSE	H	1	3A	10	0	0	0-0	N	0	--
295	DELIVERY	T	2	4B	10	0	0	0-0	N	0	--
296	DELUSION	T	5	8	10	0	0	0-0	N	0	--
297	DEMOCRAT	H	4	6	10	0	0	0-0	N	0	--
298	DEMOLISH	T	3	10	0	10	0	0-0	V	0	--
299	DEPRESSION	T,H	4	7	10	0	0	0-0	N	0	--
300	DESCRIPTION	T	3	3B	10	0	0	0-0	N	0	--
301	DESERT	H	1	2A	8	2	0	0-0	N,V	4	--
302	DESIGN	H	3	3A	5	5	0	0-0	N,V	1	4
303	DESIRE	H	1	1B	7	3	0	0-0	N,V	1	--
304	DESPERATE	T	5	4A	0	0	10	0-0	A	0	3
305	DESTROY	H	1	1B	0	10	0	0-0	V	0	--
306	DEVELOP	H	3	3A	0	10	0	0-0	V	0	--
307	DEVELOPMENT	H	3	4A	10	0	0	0-0	N	0	--

COMPLETE ALPHABETICAL LIST

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
308	DEVOTE	H	4	3A	0	10	0	0-0	V	0	--
309	DIAL	T	3	6	9	1	0	0-0	N,V	1	4
310	DIE	T,H	1	1A	1	9	0	0-0	N,V	3	--
311	DIFFICULT	H	7	2A	0	0	10	0-0	A	0	--
312	DIFFICULTY	H	2	3B	10	0	0	0-0	N	0	--
313	DIGEST	T	3	7	2	8	0	0-0	N,V	1	4
314	DINGY	T	3	9	0	0	10	0-0	A	0	--
315	DIP	T	1	3A	2	8	0	0-0	N,V	3	3,4
316	DIRECT	H	1	1B	0	6	4	0-0	V,A	3	3,4
317	DIRECTION	H	1	2A	10	0	0	0-0	N	0	--
318	DISCIPLINE	H	5	8	4	6	0	0-0	N,V	3	--
319	DISCUSS	H	3	4A	0	10	0	0-0	V	0	--
320	DISCUSSION	H	2	5B	10	0	0	0-0	N	0	--
321	DISEASE	T	3	2B	9	1	0	0-0	N,V	1	4
322	DISK	T	4	9	9	-1	0	0-0	N,V	1	--
323	DISTRIBUTE	T	7	5A	0	10	0	0-0	V	0	3
324	DISUSE	T	7	10	8	2	0	0-0	N,V	1	--
325	DIVERSION	T	7	9	10	0	0	0-0	N	0	--
326	DIVIDE	T,H	1	1B	-1	9	0	0-0	N,V	1	4
327	DIVORCE	H	3	4B	7	3	0	0-0	N,V	1	4
328	DIZZY	T	2	6	0	1	9	0-0	V,A	1	3,4
329	DOCK	T	1	4A	9	1	0	0-0	N,V	3	4
330	DOCTOR	H	1	1B	9	1	0	0-0	N,V	1	--
331	DOG	H	1	1B	8	1	1	0-0	NVA	1	--
332	DOLLAR	H	1	2A	10	0	0	0-0	N	0	--
333	DOUBLE	H	1	1B	1	3	6	0-0	NVA	1	--
334	DOUBT	H	3	1B	6	4	0	0-0	N,V	1	--
335	DOWNFALL	T	3	8	10	0	0	0-0	N	0	--
336	DREAM	H	1	1B	3	7	0	0-0	N,V	1	--
337	DRINK	H	1	1A	2	8	0	0-0	N,V	1	--
339	DRIVE	H	1	1A	2	8	0	0-0	N,V	3	--
340	DRUG	H	1	3B	9	1	0	0-0	N,V	1	4,5
338	DRUNK	H	1	4B	2	1	7	0-0	NVA	1	4
342	DUE	H	1	2A	2	0	8	0-0	N,A	1	4
343	DURABLE	T	4	7	0	0	10	0-0	A	0	3
344	DUSTER	T	3	10	10	0	0	0-0	N	0	--
345	DUTY	H	1	1B	10	0	0	0-0	N	0	--
346	EARTH	H	1	8	9	-1	0	0-0	N,V	1	--
347	ECLIPSE	T	3	6	8	2	0	0-0	N,V	1	4,5
348	EDUCATE	H	3	6	0	10	0	0-0	V	0	--
349	EDUCATION	H	2	3A	10	0	0	0-0	N	0	--
350	EDUCATIONAL	H	3	8	0	0	10	0-0	A	0	--
351	EFFECT	T,H	4	2A	8	2	0	0-0	N,V	1	4
352	EFFORT	H	3	2B	10	0	0	0-0	N	0	--
353	ELDER	T,H	1	3B	2	0	8	0-0	N,A	1	3,4
354	EMBROIDER	T	4	5B	0	10	0	0-0	V	0	--
355	EMIT	T	7	9	0	10	0	0-0	V	0	--
356	EMPLOYEE	T	3	4B	10	0	0	0-0	N	0	--
357	EMPLOYMENT	H	4	5B	10	0	0	0-0	N	0	--
358	ENCIRCLE	T	3	8	0	10	0	0-0	V	0	3

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
359	END	T,H	1	1A	8	2	0	0-0	N,V	1	4,5
360	ENERGY	H	3	4B	10	0	0	0-0	N	0	--
361	ENJOY	H	1	1B	0	10	0	0-0	V	0	--
362	ENLIVEN	T	5	9	0	10	0	0-0	V	0	--
363	ENRAGE	T	3	6	0	10	0	0-0	V	0	--
364	ENTER	T,H	1	1B	0	10	0	0-0	V	0	3
365	ENTERTAINMENT	T	3	5A	10	0	0	0-0	N	0	--
366	ENTIRE	H	3	1B	0	0	10	0-0	A	0	--
367	EPIDEMIC	T	4	8	8	0	2	0-0	N,A	1	3,4,5
368	EQUAL	H	1	1B	1	1	8	0-0	NVA	1	--
369	EQUIVALENT	T	4	7	3	0	7	0-0	N,A	1	4
370	ESCAPE	H	1	1B	2	8	0	0-0	N,V	1	--
371	ESTIMATE	T	3	4A	3	7	0	0-0	N,V	1	4
372	ESTRANGE	T	7	10	0	10	0	0-0	V	0	--
373	EVENING	H	1	1B	10	0	0	0-0	N	0	--
374	EVENT	H	3	2A	10	0	0	0-0	N	0	--
375	EVERY	H	1	1A	0	0	10	0-0	A	0	--
376	EVERYDAY	T	1	7	0	0	10	0-0	A	0	--
377	EXAMPLE	H	3	2A	10	0	0	0-0	N	0	--
378	EXCITE	T	3	3A	0	10	0	0-0	V	0	--
379	EXEMPT	T	5	6	0	5	5	0-0	V,A	1	3,4
380	EXIST	H	4	4A	0	10	0	0-0	V	0	--
381	EXPEDIENT	T	7	7	7	0	3	0-0	N,A	1	4
382	EXPLAIN	T,H	1	2A	0	10	0	0-0	V	0	3
383	EXPRESS	H	4	1B	1	8	1	0-0	NVA	3	--
384	EXTRACT	T	4	5B	4	6	0	0-0	N,V	1	4
385	EXTREME	H	4	2B	2	0	8	0-0	N,A	1	--
386	EYE	H	1	1A	9	1	0	0-0	N,V	1	--
387	FACE	H	1	1A	6	4	0	0-0	N,V	1	--
388	FACILITATE	T	6	10	0	10	0	0-0	V	0	--
389	FACT	T	1	1B	10	0	0	0-0	N	0	--
390	FACTOR	H	4	7	9	1	0	0-0	N,V	4	--
391	FAILURE	H	3	5A	10	0	0	0-0	N	0	--
392	FAITH	H	1	2A	10	0	0	0-0	N	0	--
393	FALL	H	1	1A	2	8	0	0-0	N,V	3	--
394	FAMILY	H	1	1A	10	0	0	0-0	N	0	--
395	FAMISHED	T	4	8	0	0	10	0-0	A	0	--
396	FAVOR	H	1	1B	7	3	0	0-0	N,V	3	--
397	FEATHER	H	1	2A	7	3	0	0-0	N,V	1	--
398	FEDERAL	H	3	5B	-1	0	9	0-0	N,A	1	--
399	FEEL	H	1	1A	1	9	0	0-0	N,V	1	--
400	FELT	H	1	1B	1	8	1	0-0	NVA	3	--
402	FEVER	T	1	2B	9	-1	0	0-0	N,V	1	4
403	FIELD	H	1	1A	9	1	0	0-0	N,V	3	--
404	FIGHT	H	1	1B	5	5	0	0-0	N,V	1	--
405	FILL	T,H	1	1A	-1	9	0	0-0	N,V	1	4,5
406	FINANCIAL	H	4	5B	0	0	10	0-0	A	0	--
407	FIND	H	1	1A	1	9	0	0-0	N,V	1	--
409	FINE	H	1	1A	1	1	8	0-0	NVA	3	--
410	FINISH	H	1	1B	1	9	0	0-0	N,V	1	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
411	FIRE	H	1	1A	8	2	0	0-0	N,V	1	--
412	FIRM	H	3	1B	2	1	7	0-0	NVA	3	--
413	FISH	H	1	1B	7	3	0	0-0	N,V	1	--
414	FISHERMAN	T	1	4B	10	0	0	0-0	N	0	--
415	FIST	T	1	3B	9	-1	0	0-0	N,V	1	4
416	FIX	H	1	1B	1	9	0	0-0	N,V	1	--
417	FLASK	T	4	9	10	0	0	0-0	N	0	--
418	FLAT	T	1	2A	2	-1	6	1-1	NVA*	3	--
419	FLIRT	T	3	6	4	6	0	0-0	N,V	1	4
420	FLOOR	H	1	1A	9	1	0	0-0	N,V	1	--
421	FLOWER	H	1	1A	9	1	0	0-0	N,V	1	--
422	FLUENT	T	5	9	0	0	10	0-0	A	0	--
423	FOIL	T	3	5B	4	6	0	0-0	N,V	3	4
424	FOLLY	T	4	3A	10	0	0	0-0	N	0	--
425	FOOD	H	1	1A	10	0	0	0-0	N	0	--
426	FOOT	H	1	1A	9	-1	0	0-0	N,V	1	--
427	FORCE	H	3	1B	6	4	0	0-0	N,V	1	--
428	FORECAST	T	3	10	1	9	0	0-0	N,V	1	--
429	FOREIGN	H	3	2A	0	0	10	0-0	A	0	--
430	FORM	H	1	1A	7	3	0	0-0	N,V	1	--
431	FORMER	T	4	1B	1	0	9	0-0	N,A	1	4
432	FORT	T	1	2B	10	0	0	0-0	N	0	--
408	FOUND	H	1	1A	0	10	0	0-0	V	0	--
434	FRACTURE	T	3	9	9	1	0	0-0	N,V	1	--
435	FRAGILE	T	3	8	0	0	10	0-0	A	0	3
436	FRAY	T	6	6	7	3	0	0-0	N,V	2	4
437	FREE	H	1	1A	0	1	9	0-0	V,A	1	3,4,5
438	FREEDOM	H	1	2A	10	0	0	0-0	N	0	--
439	FRIENDSHIP	H	1	3A	10	0	0	0-0	N	0	--
440	FRONT	H	1	1A	5	1	4	0-0	NVA	1	--
441	FULLY	T	1	3A	0	0	0	10-1	OT	0	--
442	FUNCTION	H	3	5A	5	5	0	0-0	N,V	1	4
443	GAIN	H	1	1B	2	8	0	0-0	N,V	1	--
444	GALLEY	T	3	8	10	0	0	0-0	N	0	--
445	GAME	H	1	1B	9	0	1	0-0	N,A	3	4,5
446	GARDEN	H	1	1A	9	1	0	0-0	N,V	1	--
447	GENERAL	H	1	1A	1	0	9	0-0	N,A	4	3,4
448	GENERATION	T,H	3	3B	10	0	0	0-0	N	0	--
449	GENEROSITY	T	3	7	10	0	0	0-0	N	0	--
450	GEOGRAPHICAL	T	4	8	0	0	10	0-0	A	0	--
451	GEOLOGY	T	5	10	10	0	0	0-0	N	0	--
452	GIANT	H	1	2A	7	0	3	0-0	N,A	1	4
453	GIRDLE	T	4	4B	7	3	0	0-0	N,V	1	4
454	GIRL	H	1	1A	10	0	0	0-0	N	0	--
455	GLAD	H	1	1A	0	0	10	0-0	A	0	--
456	GLANCE	T	1	2B	6	4	0	0-0	N,V	3	3,4
457	GLARE	T	3	4A	5	4	1	0-0	NVA	1	4
458	GOAL	H	1	4B	10	0	0	0-0	N	0	--
459	GOAT	H	1	2A	10	0	0	0-0	N	0	--
460	GOOD (S)	<TH	1	1A	2	0	8	0-0	N,A	3	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH,
463	GRAB	H	1	8	0	10	0	0-0	V	0	--
464	GRADE	H	1	2B	8	2	0	0-0	N,V	1	--
465	GRADUATE	H	3	4A	3	3	4	0-0	NVA	1	4
466	GRANDCHILD	H	1	13	10	0	0	0-0	N	0	--
467	GRATIFY	T	5	7	0	10	0	0-0	V	0	--
468	GRAVE	H	1	2A	8	0	2	0-0	N,A	4	4,5
469	GREEN	T	1	1A	2	-1	7	0-0	NVA	1	4
470	GRIN	T	2	4B	4	6	0	0-0	N,V	1	4
471	GRIND	H	1	2B	1	9	0	0-0	N,V	1	--
472	GROUND	H	1	1A	8	1	1	0-0	NVA	3	--
474	GROUP	H	1	2B	9	1	0	0-0	N,V	1	--
475	GROW	H	1	1A	0	10	0	0-0	V	0	--
476	GROWL	T	2	5A	3	7	0	0-0	N,V	1	4
477	GUESS	H	1	1B	1	9	0	0-0	N,V	1	--
478	GUILD	T	5	9	10	0	0	0-0	N	0	--
479	GUN	H	1	2A	9	1	0	0-0	N,V	1	--
480	HALLOW	T	7	5A	0	10	0	0-0	V	0	--
481	HAND	H	1	1A	8	2	0	0-0	N,V	1	--
482	HANDLE	H	1	2A	2	8	0	0-0	N,V	3	--
483	HAPPEN	H	1	1B	0	10	0	0-0	V	0	--
484	HAPPY	H	1	1A	0	0	10	0-0	A	0	--
485	HARMONIOUS	T	3	7	0	0	10	0-0	A	0	--
486	HATE	H	1	2A	3	7	0	0-0	N,V	1	--
487	HAZE	T	3	9	9	-1	0	0-0	N,V	2	--
488	HEAD	H	1	1A	9	1	0	0-0	N,V	3	--
489	HEADACHE	T	1	6	10	0	0	0-0	N	0	--
490	HEAR	H	1	1A	0	10	0	0-0	V	0	--
491	HEDGE	T	3	3A	9	1	0	0-0	N,V	2	4,5
492	HEDGEHOG	T	7	6	10	0	0	0-0	N	0	--
493	HEIGHTEN	T	3	8	0	10	0	0-0	V	0	--
494	HELP	H	1	1A	3	7	0	0-0	N,V	1	--
495	HERSELF	T	1	1B	0	0	0	10-4	OT	0	--
496	HIDE	H	1	1B	1	9	0	0-0	N,V	3	--
497	HILLSIDE	T	1	4A	10	0	0	0-0	N	0	--
498	HILT	T	5	10	9	-1	0	0-0	N,V	1	--
499	HIRE	T	1	2B	1	9	0	0-0	N,V	1	4
500	HISTORY	H	1	2A	10	0	0	0-0	N	0	--
501	HIT	H	1	2B	1	9	0	0-0	N,V	1	--
502	HOIST	T	4	7	2	8	0	0-0	N,V	1	4,5
503	HONEST	T	1	2A	0	0	10	0-0	A	0	3
504	HONEYCOMB	T	3	6	9	-1	0	0-0	N,V	1	4
505	HOPE	H	1	1A	5	5	0	0-0	N,V	1	--
506	HORSE	H	1	1A	8	-1	-1	0-0	NVA	1	--
507	HOSPITAL	H	1	3A	10	0	0	0-0	N	0	--
508	HOUR	H	1	1A	10	0	0	0-0	N	0	--
509	HUDDLE	T	3	7	1	9	0	0-0	N,V	1	3,4
510	HULL	T	2	8	9	-1	0	0-0	N,V	3	--
511	HUM	T	1	3B	4	6	0	0-0	N,V	1	4,5
512	HUMILIATION	T	3	10	10	0	0	0-0	N	0	--
513	HUMILITY	T	6	5B	10	0	0	0-0	N	0	--

COMPLETE ALPHABETICAL LIST

ORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
514	HUNDRED	T,H	1	1A	5	0	5	0-0	N,A	1	4
515	HUNT	H	1	1B	1	9	0	0-0	N,V	1	--
516	HUNTER	H	1	2B	10	0	0	0-0	N	0	--
517	HURT	H	1	1B	1	9	0	0-0	N,V	1	--
518	HUSBAND	H	1	1B	9	1	0	0-0	N,V	1	--
519	HUT	H	1	3A	9	-1	0	0-0	N,V	1	4
520	IDEA	H	1	2A	10	0	0	0-0	N	0	--
521	IDENTICAL	T	4	7	0	0	10	0-0	A	0	--
522	ILLU**STRATE**	T	3	5A	0	10	0	0-0	V	0	--
523	I**MMEDIATE**	T,H	3	2A	0	0	10	0-0	A	0	--
524	IMMUNITY	T	5	10	10	0	0	0-0	N	0	--
525	IMPATIENCE	T	3	8	10	0	0	0-0	N	0	--
526	IMPEDE	T	7	9	0	10	0	0-0	V	0	--
527	IMPORTANCE	T	2	3A	10	0	0	0-0	N	0	--
528	IMPORTANT	H	1	1B	0	0	10	0-0	A	0	--
529	IMPOSSIBLE	T,H	1	2B	0	0	10	0-0	A	0	--
530	IMPRESS	H	3	5A	1	9	0	0-0	N,V	1	4,5
531	IMPRESSION	H	3	4A	10	0	0	0-0	N	0	--
532	IMPROVE	H	1	2B	0	10	0	0-0	V	0	--
533	IMPUTE	T	7	6	0	10	0	0-0	V	0	--
534	INCENSE	T	4	4A	5	5	0	0-0	N,V	3	4,5
535	INCLUDE	H	3	2A	0	10	0	0-0	V	0	--
536	INCREASE	H	3	1B	5	5	0	0-0	N,V	1	--
537	INDICATION	T	3	9	10	0	0	0-0	N	0	--
538	INDIFFERENCE	T	6	7	10	0	0	0-0	N	0	--
539	INDIGNITY	T	7	10	10	0	0	0-0	N	0	--
540	INDIVIDUAL	H	3	3A	7	0	3	0-0	N,A	1	3,4
541	INFLUENCE	H	3	2B	5	5	0	0-0	N,V	1	--
542	INLET	T	2	9	10	0	0	0-0	N	0	--
543	INN	T	1	3B	10	0	0	0-0	N	0	--
544	INQUIRY	T	4	5B	10	0	0	0-0	N	0	--
545	INSIST	H	3	3B	0	10	0	0-0	V	0	--
546	INSPECTOR	T	3	6	10	0	0	0-0	N	0	--
547	INSTANCE	T,H	5	3A	9	1	0	0-0	N,V	1	--
548	INSTANT	T	1	2B	9	0	1	0-0	N,A	1	3,4
549	INSURANCE	H	3	5B	10	0	0	0-0	N	0	--
550	INTEGRATION	H	7	18	10	0	0	0-0	N	0	--
551	INTELLECTUAL	H	5	7	3	0	7	0-0	N,A	1	4
552	INTERNATIONAL	T	5	8	1	0	9	0-0	N,A	1	--
553	INTEREST	T,H	3	1B	6	4	0	0-0	N,V	3	4
554	INVITE	H	1	2A	0	10	0	0-0	V	0	--
555	IRREGULAR	T	3	4B	-1	0	9	0-0	N,A	1	--
556	ISLAND	H	1	1B	10	0	0	0-0	N	0	--
557	ISSUE	H	3	2A	9	1	0	0-0	N,V	2	4
558	IT	T	1	1A	0	0	0	10-4	DT	0	--
559	ITCH	T	2	6	8	2	0	0-0	N,V	1	4
560	JANITOR	T	7	9	10	0	0	0-0	N	0	--
561	JAW	T	1	3A	9	1	0	0-0	N,V	1	4
562	JOB	H	1	3A	9	1	0	0-0	N,V	1	4
563	JOG	T	5	10	1	9	0	0-0	N,V	2	--
564	JOIN	H	1	1B	0	10	0	0-0	V	0	--
565	JUDGE	H	1	1B	5	5	0	0-0	N,V	1	--
566	JUMP	T	1	2A	2	8	0	0-0	N,V	1	3,4
567	JUNCTION	T	4	9	10	0	0	0-0	N	0	--
568	JUNGLE	H	2	9	10	0	0	0-0	N	0	--
569	JURY	T	3	6	10	0	0	0-0	N	0	--
570	KICK	H	1	2B	1	9	0	0-0	N,V	1	4
571	KID	H	1	2B	9	1	0	0-0	N,V	4	--
572	KILL	H	1	1A	-1	9	0	0-0	N,V	1	--
573	KINDERGARTEN	T	3	10	10	0	0	0-0	N	0	--
574	KITCHEN	H	1	2A	10	0	0	0-0	N	0	--
575	KNEAD	T	4	8	0	10	0	0-0	V	0	--
576	KNIFE	H	1	2A	9	1	0	0-0	N,V	1	--
577	KNOT	T	1	3B	7	3	0	0-0	N,V	3	4,5
578	KNOW	H	1	1A	0	10	0	0-0	V	0	--
579	KNOWLEDGE	H	3	2A	10	0	0	0-0	N	0	--
580	LABOR	H	3	1B	9	1	0	0-0	N,V	1	--
581	LADY	H	1	1B	10	0	0	0-0	N	0	--
582	LAIR	T	4	8	10	0	0	0-0	N	0	--
583	LAKE	H	1	1B	9	-1	0	0-0	N,V	1	--
584	LAND	H	1	1A	8	2	0	0-0	N,V	1	--
585	LANGUAGE	H	1	2A	10	0	0	0-0	N	0	--
586	LANTERN	T	1	4B	10	0	0	0-0	N	0	3
587	LARGE	H	1	1A	0	0	10	0-0	A	0	--
588	LAST	T,H	1	1A	1	2	7	1-1	NVA*	3	3,4
589	LATE	H	1	1A	0	0	10	0-0	A	0	--
590	LATTER	H	4	2B	0	0	10	0-0	A	0	--
591	LAUGHTER	H	3	3A	10	0	0	0-0	N	0	--
592	LAW	H	1	1A	10	0	0	0-0	N	0	--
613	LAY	H	1	1A	1	8	1	0-0	NVA	3	--
594	LEAD	H	1	1A	1	8	1	0-0	NVA	3	--
595	LEADER	H	1	2A	10	0	0	0-0	N	0	--
596	LEADERSHIP	T,H	7	7	10	0	0	0-0	N	0	--
597	LEAN	T,H	1	2A	1	7	2	0-0	NVA	2	4
598	LEARN	H	1	1A	0	10	0	0-0	V	0	--
599	LEAST	T	1	1B	0	0	9	1-1	NVA*	1	--
600	LEAVE	H	1	1A	1	9	0	0-0	N,V	3	--
601	LEFT	H	1	1A	0	8	2	0-0	V,A	4	4
603	LEGISLATION	H	3	7	10	0	0	0-0	N	0	--
604	LEGISLATIVE	T	7	9	0	0	10	0-0	A	0	--
605	LENGTH	H	1	1A	10	0	0	0-0	N	0	--
606	LESSON	H	1	1B	10	0	0	0-0	N	0	--
607	LET	H	1	1A	-1	9	0	0-0	N,V	3	--
608	LETTER	H	1	1A	9	-1	0	0-0	N,V	1	--
609	LEVEL	H	1	2A	8	1	1	0-0	NVA	1	--
610	LIBERAL	T	5	4A	3	0	7	0-0	N,A	3	4
611	LIBRARY	H	1	2B	10	0	0	0-0	N	0	--
612	LIE	H	1	1B	4	6	0	0-0	N,V	2	--
614	LIFE	H	1	1A	10	0	0	0-0	N	0	--
616	LIGHT	H	1	1A	4	2	4	0-0	NVA	3	--

COMPLETE ALPHABETICAL LIST

WORD #	WORD	SMPL	D	TH	MGF VECTOR				GR.	SM	DATA
					N	V	A	OT	TYPE	CO	IN CH.
617	LIGHTHOUSE	T	3	6	10	0	0	0-0	N	0	--
618	LIKE	H	1	1A	1	4	5	0-0	NVA	3	--
619	LIKEN	T	7	7	0	10	0	0-0	V	0	--
620	LIMIT	H	2	2A	8	2	0	0-0	N,V	1	--
621	LIMITATION	T	4	8	10	0	0	0-0	N	0	3
622	LIMP	T	1	5B	1	3	6	0-0	NVA	4	3,4
623	LINE	H	1	1A	9	1	0	0-0	N,V	3	4,5
624	LINK	T	7	3B	4	6	0	0-0	N,V	3	4
625	LION	H	1	1B	10	0	0	0-0	N	0	--
626	LISTEN	H	1	1B	0	10	0	0-0	V	0	--
627	LITTLE	H	1	1A	0	0	10	0-0	A	0	--
615	LIVE	T	1	1A	0	9	1	0-0	V,A	1	3,4,5
629	LIVELY	T	1	3A	0	0	10	0-0	A	0	--
630	LOAD	H	1	1B	8	2	0	0-0	N,V	1	--
631	LOAN	H	1	7	9	1	0	0-0	N,V	1	4
632	LOBSTER	T	2	10	10	0	0	0-0	N	0	--
633	LODGE	H	4	2A	7	3	0	0-0	N,V	1	--
634	LONESOME	T	1	5A	0	0	10	0-0	A	0	3
635	LONG	H	1	1A	0	1	9	0-0	V,A	4	--
636	LOOK	H	1	1B	2	8	0	0-0	N,V	1	--
637	LORD	H	1	1B	9	1	0	0-0	N,V	1	--
638	LOSE	H	1	1B	0	10	0	0-0	V	0	--
639	LOSS	H	1	1B	10	0	0	0-0	N	0	--
640	LOUD	T	1	1B	0	0	9	1-1	NVA*	1	--
641	LOVE	H	1	1A	4	6	0	0-0	N,V	1	--
642	LOVER	H	1	2B	10	0	0	0-0	N	0	--
643	LOW	<TH	1	1A	0	-1	9	0-0	V,A	4	--
644	LOWER	H	1	1B	0	3	7	0-0	V,A	1	--
646	LOWLY	T	6	6	0	0	8	2-1	NVA*	1	--
647	MAD	H	1	2A	0	0	10	0-0	A	0	--
648	MADDEN	T	7	10	0	10	0	0-0	V	0	--
649	MAGGOT	T	5	8	10	0	0	0-0	N	0	--
650	MAGNET	T	2	7	10	0	0	0-0	N	0	--
651	MAINTAIN	H	4	2B	0	10	0	0-0	V	0	--
652	MAJOR	H	1	4A	3	2	5	0-0	NVA	3	4
653	MAJORITY	H	3	3A	10	0	0	0-0	N	0	--
654	MAKE	H	1	1A	1	9	0	0-0	N,V	1	--
655	MAN	H	1	1A	9	1	0	0-0	N,V	1	--
656	MANAGE	H	7	2B	0	10	0	0-0	V	0	--
657	MANNER	H	3	1B	10	0	0	0-0	N	0	--
658	MANUFACTURE	T	3	2B	4	6	0	0-0	N,V	1	4
659	MAP	T	1	2A	9	1	0	0-0	N,V	1	4
660	MAPLE	T	1	4B	10	0	0	0-0	N	0	--
661	MARCH	H	1	1B	6	4	0	0-0	N,V	3	--
662	MARK	H	1	1A	8	2	0	0-0	N,V	3	--
663	MARKET	H	1	1B	9	1	0	0-0	N,V	1	--
664	MARRIAGE	H	1	3A	10	0	0	0-0	N	0	--
665	MARRY	H	1	2A	0	10	0	0-0	V	0	--
666	MART	T	6	9	10	0	0	0-0	N	0	--
667	MASS	H	3	2A	9	1	0	0-0	N,V	1	--
668	MASTER	H	1	1B	7	3	0	0-0	N,V	1	--
669	MATTER	H	1	1A	7	3	0	0-0	N,V	4	--
670	MATURE	T	4	4A	0	5	5	0-0	V,A	1	3,4
671	MEAL	H	1	2A	10	0	0	0-0	N	0	--
672	MEAN	H	1	1A	1	7	2	0-0	NVA	3	--
673	MEAT	H	1	1B	10	0	0	0-0	N	0	--
674	MEDICAL	H	3	5B	0	0	10	0-0	A	0	--
675	MEDICINE	H	1	2B	10	0	0	0-0	N	0	--
676	MEDITATE	T	5	5B	0	10	0	0-0	V	0	--
677	MEET	H	1	1A	-1	9	0	0-0	N,V	1	--
678	MELLOW	T	5	5A	0	1	9	0-0	V,A	1	4,5
679	MEMORY	H	2	2A	10	0	0	0-0	N	0	--
680	MENTAL	H	3	7	0	0	10	0-0	A	0	--
681	MENTION	H	2	2A	2	8	0	0-0	N,V	1	--
682	MESSAGE	H	1	2A	10	0	0	0-0	N	0	--
683	METALLIC	T	5	9	0	0	10	0-0	A	0	--
684	METAPHOR	T	6	10	10	0	0	0-0	N	0	--
685	METHOD	H	3	3A	10	0	0	0-0	N	0	--
686	MICROSCOPE	T	2	7	10	0	0	0-0	N	0	--
687	MIGHT	H	1	1A	2	8	0	0-0	N,V	[illegible]	--
688	MILE	H	1	1A	10	0	0	0-0	N	[illegible]	--
689	MILL	T	1	1B	9	1	0	0-0	N,V	1	4,5
690	MIND	H	1	1A	8	2	0	0-0	N,V	4	--
691	MINGLE	T	4	3B	0	10	0	0-0	V	0	--
692	MINISTER	H	2	2B	9	1	0	0-0	N,V	1	--
693	MINUS	T	3	10	-1	0	-2	-7-2	NVA*	1	--
694	MINUTE	H	1	1B	9	0	1	0-0	N,A	4	4
695	MIRTHFUL	T	7	9	0	0	10	0-0	A	0	--
696	MISS	T,H	1	1A	1	9	0	0-0	N,V	3	4
697	MISSILE	H	6	14	10	0	0	0-0	N	0	--
698	MIST	T	3	3A	9	-1	0	0-0	N,V	1	4
699	MISTAKE	H	1	2A	9	1	0	0-0	N,V	1	--
700	MIX	H	1	2A	1	9	0	0-0	N,V	1	--
701	MODERN	H	2	2B	-1	0	9	0-0	N,A	1	--
702	MOISTEN	T	3	6	0	10	0	0-0	V	0	--
703	MOLEST	T	5	7	0	10	0	0-0	V	0	--
704	MOMENT	H	1	1B	10	0	0	0-0	N	0	--
705	MONETARY	H	7	17	0	0	10	0-0	A	0	--
706	MONEY	H	1	1A	10	0	0	0-0	N	0	--
707	MONSTER	H	3	4B	10	0	0	0-0	N	0	--
708	MONTH	H	1	1A	10	0	0	0-0	N	0	--
709	MORAL	H	4	3A	1	0	9	0-0	N,A	1	3,4
710	MORNING	H	1	1A	10	0	0	0-0	N	0	--
711	MOTHER	H	1	1A	9	-1	0	0-0	N,V	1	--
712	MOTIVE	T	4	3B	8	-1	1	0-0	NVA	1	4
713	MOTOR	T	1	4A	8	2	0	0-0	N,V	1	4,5
714	MOUNTAIN	H	1	1A	10	0	0	0-0	N	0	--
715	MOVE	H	1	1A	2	8	0	0-0	N,V	1	--
716	MOVEMENT	H	2	3A	10	0	0	0-0	N	0	--
717	MUD	H	1	2B	10	0	0	0-0	N	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
718	MURDERER	T	2	5A	10	0	0	0-0	N	0	--
719	MUSHROOM	T	2	8	9	-1	0	0-0	N,V	1	--
720	MUSIC	H	1	1B	10	0	0	0-0	N	0	--
721	MUTTON	T	3	5B	10	0	0	0-0	N	0	--
722	MUTUAL	H	5	4B	0	0	10	0-0	A	0	--
723	NAME	T,H	1	1A	8	2	0	0-0	N,V	1	4,5
724	NAMELESS	T	4	6	0	0	10	0-0	A	0	--
725	NATION	H	2	1B	10	0	0	0-0	N	0	--
726	NATIONAL	T,H	3	2B	1	0	9	0-0	N,A	1	4
727	NATURE	H	4	1B	10	0	0	0-0	N	0	--
728	NECESSARY	H	2	1B	-1	0	9	0-0	N,A	1	--
729	NECK	H	1	1B	9	1	0	0-0	N,V	1	--
730	NEED	H	1	1A	4	6	0	0-0	N,V	1	--
731	NEGLIGENCE	T	4	9	10	0	0	0-0	N	0	--
732	NEGOTIATION	T	5	7	10	0	0	0-0	N	0	--
733	NEIGHBOR	H	1	1B	9	-1	0	0-0	N,V	1	--
734	NERVOUS	H	2	4B	0	0	10	0-0	A	0	--
735	NIBBLE	T	1	6	3	7	0	0-0	N,V	1	4,5
736	NICKEL	T	1	4B	10	0	0	0-0	N	0	--
737	NIMBLE	T	6	5B	0	0	10	0-0	A	0	--
738	NINE	T	1	1B	1	0	9	0-0	N,A	1	4
739	NOBODY	T	1	2B	-1	0	0	9-4	NVA*	1	--
740	NOISE	T	1	2A	9	-1	0	0-0	N,V	1	4
741	NORMAL	H	2	5A	-1	0	9	0-0	N,A	1	--
742	NORTHEAST	T	2	7	3	0	7	0-0	N,A	1	4
743	NOSE	H	1	1B	9	1	0	0-0	N,V	1	--
744	NOTION	T	3	3B	10	0	0	0-0	N	0	--
745	NOUN	T	4	10	10	0	0	0-0	N	0	--
746	NOVEL	T	3	5A	8	0	2	0-0	N,A	4	4,5
747	NUCLEAR	H	7	17	0	0	10	0-0	A	0	--
748	NUISANCE	T	3	8	10	0	0	0-0	N	0	--
749	NUMEROUS	T	3	3A	0	0	10	0-0	A	0	--
750	NURSE	H	1	2A	9	1	0	0-0	N,V	1	--
751	NURTURE	T	6	9	0	10	0	0-0	V	0	--
752	OBEDIENCE	T	2	4A	10	0	0	0-0	N	0	--
753	OBJECT	H	2	1B	7	3	0	0-0	N,V	4	4
754	OBJECTIVE	H	6	14	7	0	3	0-0	N,A	4	--
755	OBSERVE	H	3	2A	0	10	0	0-0	V	0	--
756	OCCUR	H	3	2B	0	10	0	0-0	V	0	--
757	ODIOUS	T	7	6	0	0	10	0-0	A	0	--
758	OFFENSIVE	H	5	7	-1	0	9	0-0	N,A	3	--
759	OFFER	H	1	1B	2	8	0	0-0	N,V	1	--
760	OFFICE	H	1	1B	10	0	0	0-0	N	0	--
761	OFFICER	H	1	3A	9	-1	0	0-0	N,V	1	4
762	OFFICIAL	H	3	3A	5	0	5	0-0	N,A	1	3,4
763	OLD	H	1	1A	0	0	10	0-0	A	0	--
764	OPERATE	H	3	5B	0	10	0	0-0	V	0	--
765	OPERATION	H	3	2B	10	0	0	0-0	N	0	--
766	OPINION	H	3	2A	10	0	0	0-0	N	0	--
767	OPPORTUNITY	H	3	2B	10	0	0	0-0	N	0	--
768	ORCHESTRA	T	3	5B	10	0	0	0-0	N	0	3
769	ORDER	H	1	1A	8	2	0	0-0	N,V	2	--
770	ORE	T	1	10	10	0	0	0-0	N	0	--
771	ORGANIZE	T	3	4B	0	10	0	0-0	V	0	3
772	OUT	T	1	1A	0	0	0	10-3	OT	0	--
773	OUTLAW	T	3	10	8	2	0	0-0	N,V	1	--
774	OUTLET	T	3	4B	10	0	0	0-0	N	0	--
775	OUTRAGE	T	5	6	7	3	0	0-0	N,V	1	4,5
776	OVEN	T	1	3B	10	0	0	0-0	N	0	3
777	OVERTURN	T	1	5A	1	9	0	0-0	N,V	1	4,5
778	OWN	H	1	1A	1	2	7	0-0	NVA	3	--
779	OWNER	H	1	2B	10	0	0	0-0	N	0	--
780	OXIDATION	T	5	9	10	0	0	0-0	N	0	--
781	PACE	H	1	2B	8	2	0	0-0	N,V	1	--
782	PACK	T,H	1	2A	4	6	0	0-0	N,V	3	4
783	PAGE	T	1	1B	9	-1	0	0-0	N,V	2	4,5
784	PAIN	H	1	1B	9	1	0	0-0	N,V	1	--
785	PAINT	H	1	1B	5	5	0	0-0	N,V	1	--
786	PAPER	H	1	1A	9	1	0	0-0	N,V	1	--
787	PARACHUTE	H	3	12	9	1	0	0-0	N,V	1	--
788	PARADISE	T	3	3A	10	0	0	0-0	N	0	--
789	PARALYZE	T	2	8	0	10	0	0-0	V	0	--
790	PARENT	H	1	2A	10	0	0	0-0	N	0	--
791	PARROT	T	2	5B	9	-1	0	0-0	N,V	1	4,5
792	PARTICIPANT	H	5	16	9	0	1	0-0	N,A	0	--
793	PARTICIPATE	H	4	7	0	10	0	0-0	V	0	--
794	PARTNER	H	1	3B	9	-1	0	0-0	N,V	1	4
795	PASS	H	1	1A	1	9	0	0-0	N,V	1	--
796	PATH	H	1	1B	10	0	0	0-0	N	0	--
797	PATIENT	H	3	2B	7	0	3	0-0	N,A	3	4
798	PATTER	T	1	7	6	4	0	0-0	N,V	1	4
799	PATTERN	H	4	2B	9	1	0	0-0	N,V	1	--
800	PAY	H	1	1A	2	8	0	0-0	N,V	3	--
801	PAYMENT	H	1	3B	10	0	0	0-0	N	0	--
802	PEACE	H	1	1B	10	0	0	0-0	N	0	--
803	PEACEFUL	H	1	3B	0	0	10	0-0	A	0	--
804	PEASANT	H	4	4A	10	0	0	0-0	N	0	--
805	PENITENT	T	6	7	4	0	6	0-0	N,A	1	3,4
806	PENNY	T	1	2B	10	0	0	0-0	N	0	--
807	PENSION	T	7	6	9	1	0	0-0	N,V	1	4,5
808	PEOPLE	H	1	1A	9	1	0	0-0	N,V	1	--
809	PERFECT	H	2	1B	0	1	9	0-0	V,A	1	--
810	PERIOD	H	3	2B	10	0	0	0-0	N	0	--
811	PERMIT	H	3	2A	1	9	0	0-0	N,V	1	--
812	PERSISTENT	T	5	8	0	0	10	0-0	A	0	--
813	PERSON	H	1	1A	10	0	0	0-0	N	0	--
814	PERSONAL	T,H	3	3B	-1	0	9	0-0	N,A	0	3
815	PERSONALITY	H	3	7	10	0	0	0-0	N	0	--
816	PHILOSOPHY	T	5	4A	10	0	0	0-0	N	0	--
817	PHYSIOLOGY	T	4	10	10	0	0	0-0	N	0	--

WORD					MGF VECTOR				GR.	SM	DATA
#	WORD	SMPL	D	TH	N	V	A	OT	TYPE	CO	IN CH.
818	PICK	T,H	1	1B	1	9	0	0-0	N,V	3	4
819	PICTURE	H	1	1A	9	1	0	0-0	N,V	1	--
820	PIECE	H	1	1A	9	1	0	0-0	N,V	3	--
821	PIG	H	1	2A	9	-1	0	0-0	N,V	1	--
822	PIKE	T	4	7	9	-1	0	0-0	N,V	3	4
823	PINEAPPLE	T	1	9	10	0	0	0-0	N	0	--
824	PLACE	H	1	1A	8	2	0	0-0	N,V	1	--
825	PLAIN	T,H	1	1A	3	0	7	0-0	N,A	4	4
826	PLAN	H	1	1B	7	3	0	0-0	N,V	1	--
827	PLANE	H	1	4B	9	1	0	0-0	N,V	3	4,5
828	PLANK	T	2	5A	9	1	0	0-0	N,V	3	4,5
829	PLANT	H	1	1A	5	5	0	0-0	N,V	1	--
830	PLATFORM	H	1	4A	10	0	0	0-0	N	0	--
831	PLEASANT	H	1	1B	0	0	10	0-0	A	0	--
832	PLEASURE	H	1	1B	10	0	0	0-0	N	0	--
833	POCKET	H	1	2A	9	1	0	0-0	N,V	1	--
834	POD	T	3	10	10	0	0	0-0	N	0	--
835	POEM	T	1	3A	10	0	0	0-0	N	0	--
836	POETIC (S)	T	5	6	-1	0	9	0-0	N,A	1	4
837	POINT	H	1	1A	7	3	0	0-0	N,V	1	--
838	POLE	H	1	2A	9	1	0	0-0	N,V	1	--
839	POLICE	H	1	4A	9	1	0	0-0	N,V	1	4,5
840	POLICY	H	4	3B	10	0	0	0-0	N	0	--
841	POLITICAL	H	4	4A	0	0	10	0-0	A	0	--
842	POLITICIAN	H	3	8	10	0	0	0-0	N	0	--
843	POLITICS	H	3	9	10	0	0	0-0	N	0	--
844	POLL	T	4	4B	8	2	0	0-0	N,V	1	4,5
845	POPULATION	H	3	3A	10	0	0	0-0	N	0	--
846	PORTRAIT	T	3	9	10	0	0	0-0	N	0	--
847	POSSIBILITY	H	3	5A	10	0	0	0-0	N	0	--
848	POSSIBLE	H	1	1B	0	0	10	0-0	A	0	--
849	POST	H	1	1B	8	2	0	0-0	N,V	3	--
850	POT	H	1	2A	9	1	0	0-0	N,V	3	--
851	POUND	H	1	1B	7	3	0	0-0	N,V	3	--
852	POVERTY	H	4	3B	10	0	0	0-0	N	0	--
853	POWERFUL	T	1	3B	0	0	9	1-1	NVA*	1	--
854	PRACTICAL	H	5	3A	0	0	10	0-0	A	0	--
855	PRACTICE	H	2	1B	3	7	0	0-0	N,V	3	--
856	PRAY	H	1	2A	0	10	0	0-0	V	0	--
857	PRAYER	H	1	2A	10	0	0	0-0	N	0	--
858	PREDICT	T	4	7	0	10	0	0-0	V	0	3
859	PREFER	H	3	2A	0	10	0	0-0	V	0	--
860	PREGNANT	H	4	7	0	0	10	0-0	A	0	--
861	PREPARE	H	1	1B	0	10	0	0-0	V	0	--
862	PRESCRIBE	T	3	4A	0	10	0	0-0	V	0	--
863	PRESENT	H	1	1A	1	2	7	0-0	NVA	3	--
864	PRESERVE	T	3	2A	1	9	0	0-0	N,V	1	4
865	PRESIDENT	H	3	2A	10	0	0	0-0	N	0	--
866	PRESS	H	3	1B	5	5	0	0-0	N,V	2	--
867	PRESSURE	H	3	5A	9	1	0	0-0	N,V	1	4,5
868	PRETEND	H	2	3B	0	10	0	0-0	V	0	--
869	PREVENT	H	3	2A	0	10	0	0-0	V	0	--
870	PREVIOUS	H	3	4A	0	0	10	0-0	A	0	--
871	PRICE	H	1	1B	9	1	0	0-0	N,V	1	--
872	PRIEST	H	3	3A	10	0	0	0-0	N	0	--
873	PRIMARY	H	3	5B	1	0	9	0-0	N,A	3	3,4,5
874	PRINCE	T,H	1	1B	10	0	0	0-0	N	0	3
875	PRINCIPAL	H	3	2B	1	0	9	0-0	N,A	1	--
876	PRIVATE	H	3	2A	1	0	9	0-0	N,A	4	4,5
877	PROBABLE	H	4	2B	0	0	10	0-0	A	0	--
878	PROBLEM	H	3	3A	10	0	0	0-0	N	0	--
879	PROCEED	H	3	2A	1	9	0	0-0	N,V	1	--
880	PROCESSION	T	4	4B	10	0	0	0-0	N	0	--
881	PROGRAM	H	2	5B	9	1	0	0-0	N,V	1	4
882	PROGRESS	H	4	3A	7	3	0	0-0	N,V	1	4
883	PROJECT	H	4	5A	9	1	0	0-0	N,V	3	4
884	PROLIFIC	H	7	8	0	0	10	0-0	A	0	--
885	PROLOGUE	T	7	9	10	0	0	0-0	N	0	--
886	PROMISE	H	1	1B	4	6	0	0-0	N,V	1	--
887	PROMOTE	T	3	6	0	10	0	0-0	V	0	--
888	PROMPT	T	3	2B	1	4	5	0-0	NVA	3	4
889	PROPER	H	1	1B	0	0	10	0-0	A	0	--
890	PROPOSAL	H	3	7	10	0	0	0-0	N	0	--
891	PROPOSITION	T	4	5B	9	-1	0	0-0	N,V	1	4
892	PROTECT	H	1	2A	0	10	0	0-0	V	0	--
893	PROVE	H	1	1B	0	10	0	0-0	V	0	--
894	PROW	T	7	10	10	0	0	0-0	N	0	--
895	PROWL	T	3	9	-1	9	0	0-0	N,V	1	--
896	PRY	T	3	8	-1	9	0	0-0	N,V	2	--
897	PUBLIC	T,H	1	2B	3	0	7	0-0	N,A	1	4
898	PULL	H	1	1B	1	9	0	0-0	N,V	1	--
899	PURPOSE	H	7	1B	9	-1	0	0-0	N,V	1	--
900	PUSH	H	1	2A	1	9	0	0-0	N,V	1	--
901	PYRAMID	T	3	7	9	-1	0	0-0	N,V	1	4
902	QUALIFICATION	T	3	8	10	0	0	0-0	N	0	--
903	QUARANTINE	T	3	10	9	-1	0	0-0	N,V	1	--
904	QUESTION	H	1	1B	9	1	0	0-0	N,V	1	--
905	QUICK	T	1	1A	0	0	7	3-1	NVA*	1	--
906	QUIVER	T	3	4B	2	8	0	0-0	N,V	3	4
907	RABBIT	H	1	2B	9	-1	0	0-0	N,V	1	--
908	RACE	H	1	1B	9	1	0	0-0	N,V	3	--
909	RACIAL	H	4	10	0	0	10	0-0	A	0	--
910	RADICAL	T	5	7	-1	0	9	0-0	N,A	3	3,4
911	RAIN	H	1	1A	6	4	0	0-0	N,V	1	--
912	RAINFALL	T	4	6	10	0	0	0-0	N	0	3
913	RAINY	T	1	4A	0	0	10	0-0	A	0	3
914	REACH	H	1	1A	1	9	0	0-0	N,V	1	--
915	REACT	T	5	10	0	10	0	0-0	V	0	--
916	READ	H	1	1A	0	10	0	0-0	V	0	--
917	READY	H	1	1A	0	0	10	0-0	A	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
918	REAL	T	1	1B	0	0	10	0-0	A	0	3
919	REASON	H	1	1A	9	1	0	0-0	N,V	1	--
920	RECOMMEND	T	3	3B	0	10	0	0-0	V	0	--
921	RECORD	H	1	2A	9	1	0	0-0	N,V	1	--
922	RECTANGULAR	T	3	8	0	0	10	0-0	A	0	--
923	REGARD	H	3	2A	6	4	0	0-0	N,V	1	--
924	RELATE	T,H	2	3A	0	10	0	0-0	V	0	--
925	RELATIONSHIP	H	3	8	10	0	0	0-0	N	0	--
926	RELATIVE	H	3	3A	7	0	3	0-0	N,A	4	4
927	RELAXATION	T	3	10	10	0	0	0-0	N	0	--
928	RELIABLE	T	3	6	0	0	10	0-0	A	0	--
929	REMEMBER	H	1	1A	0	10	0	0-0	V	0	--
930	REMIND	H	1	4A	0	10	0	0-0	V	0	--
931	RENDER	T	6	2B	1	9	0	0-0	N,V	3	4
932	RENOUNCE	T	7	5A	0	10	0	0-0	V	0	3
933	REPORT	H	1	1B	5	5	0	0-0	N,V	3	--
934	REPORTER	T	2	9	10	0	0	0-0	N	0	--
935	REPRESS	T	7	9	0	10	0	0-0	V	0	--
936	RESERVE	H	4	3A	6	4	0	0-0	N,V	1	4
937	RESPECT	H	3	2A	5	5	0	0-0	N,V	3	--
938	RESPECTFUL	T	3	5B	0	0	10	0-0	A	0	--
939	RESPONSIBILITY	H	3	8	10	0	0	0-0	N	0	--
940	REST	H	1	1A	7	3	0	0-0	N,V	2	--
941	RESULT	H	3	2A	7	3	0	0-0	N,V	1	--
942	RETIREMENT	T	2	8	10	0	0	0-0	N	0	--
943	REVEREND	T	4	4B	-1	0	9	0-0	N,A	1	4
944	RICE	H	1	3A	9	-1	0	0-0	N,V	1	4
945	RIFT	T	7	9	9	-1	0	0-0	N,V	1	--
946	RIGHT	H	1	1A	4	1	5	0-0	NVA	3	--
947	RISE	H	1	1B	3	7	0	0-0	N,V	1	--
949	RIVER	H	1	1A	10	0	0	0-0	N	0	--
950	ROAD	H	1	1A	10	0	0	0-0	N	0	--
951	ROLE	H	3	9	10	0	0	0-0	N	0	--
952	ROLL	H	1	1A	1	9	0	0-0	N,V	3	--
953	ROOM	H	1	1A	9	1	0	0-0	N,V	1	--
948	ROSE	H	1	1B	4	2	4	0-0	NVA	3	--
955	ROTATION	T	2	7	10	0	0	0-0	N	0	--
956	ROVE	T	3	4A	-1	9	0	0-0	N,V	1	4
957	ROYAL	T	1	2A	1	0	9	0-0	N,A	1	4
958	RUN	T,H	1	1A	2	8	0	0-0	N,V	1	4
959	RUSH	H	1	1B	1	9	0	0-0	N,V	3	--
960	SAFFRON	T	7	10	6	0	4	0-0	N,A	1	--
961	SAND	H	1	1B	9	-1	0	0-0	N,V	1	--
962	SANE	T	4	8	0	0	10	0-0	A	0	--
963	SAUCER	T	3	6	10	0	0	0-0	N	0	--
964	SAVAGE	T	1	2B	4	0	6	0-0	N,A	1	3,4
966	SAY	H	1	1A	1	9	0	0-0	N,V	1	--
967	SCARE	H	1	3A	1	9	0	0-0	N,V	1	4,5
968	SCHOOL	H	1	1A	9	1	0	0-0	N,V	1	--
969	SCIENTIFIC	T	3	7	0	0	10	0-0	A	0	--
970	SCISSOR	T	2	5A	9	-1	0	0-0	N,V	1	4
971	SCOOP	T	3	6	2	8	0	0-0	N,V	1	4
972	SCREAM	H	1	3A	1	9	0	0-0	N,V	1	4
973	SCREEN	T	1	4A	9	1	0	0-0	N,V	3	3,4
974	SEARCH	H	1	2A	2	8	0	0-0	N,V	1	--
975	SEASON	T	1	1B	9	1	0	0-0	N,V	3	4,5
976	SECRETARY	T	3	3B	10	0	0	0-0	N	0	--
977	SECURE	H	3	2A	0	8	2	0-0	V,A	1	4
978	SECURITY	H	3	5B	10	0	0	0-0	N	0	--
979	SEE (SAW)	H	1	1A	-1	9	0	0-0	N,V	4	--
980	SAW <SEE	H	1	1A	1	9	0	0-0	N,V	3	--
981	SEEK	H	1	1B	0	10	0	0-0	V	0	--
982	SEEM	H	1	1A	0	10	0	0-0	V	0	--
983	SEIZURE	T	4	9	10	0	0	0-0	N	0	--
984	SELL	H	1	2A	-1	9	0	0-0	N,V	1	--
985	SEND	T,H	1	1A	0	10	0	0-0	V	0	3
986	SENSE	H	1	2A	8	2	0	0-0	N,V	1	--
987	SEPARATE	H	1	1B	0	3	7	0-0	V,A	1	4
988	SERF	T	4	8	10	0	0	0-0	N	0	--
989	SERIOUS	H	3	2B	0	0	10	0-0	A	0	--
990	SERVANT	H	1	2A	10	0	0	0-0	N	0	--
991	SESSION	H	3	6	10	0	0	0-0	N	0	--
992	SET	H	1	1A	2	7	1	0-0	NVA	3	--
993	SETTLE	H	1	1B	0	10	0	0-0	V	0	--
994	SHAPE	H	1	1B	8	2	0	0-0	N,V	1	--
995	SHATTER	T	4	4B	0	10	0	0-0	V	0	--
996	SHEEN	T	6	10	10	0	0	0-0	N	0	--
997	SHEEP	H	1	1B	10	0	0	0-0	N	0	--
998	SHELF (SHELVES)	<TH	1	4B	10	0	0	0-0	N	0	--
1000	SHELL	H	1	2A	9	1	0	0-0	N,V	1	--
999	SHELVE	T	7	7	0	10	0	0-0	V	0	3
1002	SHIFT	H	3	3B	9	1	0	0-0	N,V	1	4
1003	SHOCK	H	1	2B	5	5	0	0-0	N,V	3	--
1004	SHOE	H	1	1B	9	1	0	0-0	N,V	1	--
1005	SHOP	H	1	1B	8	2	0	0-0	N,V	1	--
1006	SHOOT (SHOT)	H	1	2A	1	9	0	0-0	N,V	3	--
1007	SHOT <SHOOT	H	1	2A	2	7	1	0-0	NVA	1	--
1009	SHOUT	H	1	1B	3	7	0	0-0	N,V	1	--
1010	SHOW	H	1	1A	1	9	0	0-0	N,V	1	--
1011	SHRUNK	T	7	9	0	10	0	0-0	V	0	--
1012	SHUT	H	1	1B	0	10	0	0-0	V	0	--
1013	SICK	H	1	1B	0	0	10	0-0	A	0	--
1014	SICKNESS	T	1	3A	10	0	0	0-0	N	0	--
1015	SIGHT	T	1	1A	9	1	0	0-0	N,V	1	4,5
1016	SIGN	H	1	1B	8	2	0	0-0	N,V	1	--
1017	SIGNIFICANCE	T	7	7	10	0	0	0-0	N	0	--
1018	SIMILAR	H	3	3B	0	0	10	0-0	A	0	--
1019	SIREN	T	4	8	10	0	0	0-0	N	0	--
1020	SISTER	H	1	1A	10	0	0	0-0	N	0	--
1021	SIT	H	1	1A	0	10	0	0-0	V	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
1022	SITUATION	H	3	4A	10	0	0	0-0	N	0	--
1023	SKIRT	T	1	2A	7	3	0	0-0	N,V	4	4,5
1024	SKY	H	1	1B	10	0	0	0-0	N	0	--
1025	SLAVE	H	1	2A	9	1	0	0-0	N,V	1	--
1026	SLEEP	H	1	1A	3	7	0	0-0	N,V	1	--
1027	SLEIGH	T	1	5A	8	2	0	0-0	N,V	1	4,5
1028	SLIT	T	1	9	8	2	0	0-0	N,V	1	--
1029	SLOPE	T	2	2B	8	2	0	0-0	N,V	1	4
1030	SMALL	H	1	1A	0	0	10	0-0	A	0	--
1031	SMILE	H	1	1B	5	5	0	0-0	N,V	1	--
1032	SMUGGLE	T	3	9	0	10	0	0-0	V	0	--
1033	SNAKE	H	1	3B	9	-1	0	0-0	N,V	1	4,5
1034	SNATCH	T	2	3B	1	9	0	0-0	N,V	1	4
1035	SNOW	H	1	1B	8	2	0	0-0	N,V	1	--
1036	SOCKET	T	3	6	9	-1	0	0-0	N,V	1	4
1037	SOFTEN	T	2	4B	0	10	0	0-0	V	0	3
1038	SOLDIER	H	1	1A	9	-1	0	0-0	N,V	1	--
1039	SOLITARY	T	4	4A	2	0	8	0-0	N,A	1	4
1040	SOLUBLE	T	5	8	0	0	10	0-0	A	0	--
1041	SOLUTION	H	3	5B	10	0	0	0-0	N	0	--
1042	SOLVE	H	3	3B	0	10	0	0-0	V	0	--
1043	SORDID	T	7	8	0	0	10	0-0	A	0	--
1044	SORROW	T	1	2A	9	1	0	0-0	N,V	1	4
1045	SORRY	H	1	2A	0	0	10	0-0	A	0	--
1046	SORT	H	1	1B	7	3	0	0-0	N,V	3	--
1047	SOUND	H	1	1A	6	3	1	0-0	NVA	3	--
1048	SOUTHWARD	T	3	5B	1	0	1	8-1	NVA*	1	--
1049	SPARE	H	4	2A	0	8	2	0-0	V,A	4	3,4
1050	SPARSE	T	6	10	0	0	10	0-0	A	0	--
1051	SPEAK	H	1	7	0	10	0	0-0	V	0	--
1053	SPEAR	H	1	3A	8	2	0	0-0	N,V	1	4,5
1054	SPEECH	H	1	2A	10	0	0	0-0	N	0	--
1055	SPEND	H	1	1B	0	10	0	0-0	V	0	--
1056	SPIRIT	H	1	1B	9	1	0	0-0	N,V	1	--
1057	SPIT	H	1	4B	5	5	0	0-0	N,V	3	4
1058	SPITE	H	5	2A	9	1	0	0-0	N,V	4	--
1059	SPLINTER	T	3	7	7	3	0	0-0	N,V	1	4,5
1052	SPOKE <SPEAK	<TH	1	1B	-1	9	0	0-0	N,V	4	--
1061	SPORT	H	1	2A	9	1	0	0-0	N,V	2	--
1062	SPOT	H	1	1B	9	1	0	0-0	N,V	3	--
1063	STAIN	T	3	3A	3	7	0	0-0	N,V	1	4
1064	STAMMER	T	4	6	-1	9	0	0-0	N,V	1	4
1065	STAND	H	1	1A	2	8	0	0-0	N,V	1	--
1066	STANDARD	H	3	2B	7	0	3	0-0	N,A	3	4
1067	STAR	T	1	1B	9	1	0	0-0	N,V	1	4
1068	START	H	1	1A	1	9	0	0-0	N,V	3	--
1069	STATE	H	1	1A	8	2	0	0-0	N,V	4	--
1070	STATEMENT	H	2	4A	10	0	0	0-0	N	0	--
1071	STATION	H	1	1B	8	2	0	0-0	N,V	1	--
1072	STATUS	H	6	11	10	0	0	0-0	N	0	--
1073	STAY	H	1	1A	1	9	0	0-0	N,V	2	--
1074	STEER	H	1	3B	1	9	0	0-0	N,V	3	4
1075	STICK	H	1	1B	5	5	0	0-0	N,V	3	--
1076	STIMULANT	T	6	10	10	0	0	0-0	N	0	--
1077	STIR	T	1	2A	2	8	0	0-0	N,V	1	4
1078	STONE	H	1	1A	9	1	0	0-0	N,V	1	--
1079	STOP	H	1	1A	1	9	0	0-0	N,V	1	--
1080	STORE	H	1	1B	9	1	0	0-0	N,V	1	--
1081	STORM	H	1	1B	9	1	0	0-0	N,V	1	--
1082	STORY	H	1	1A	10	0	0	0-0	N	0	--
1083	STRANGE (-ER)	<TH	1	1B	0	0	10	0-0	A	0	--
1084	STRANGER	T	1	2B	9	0	-1	0-0	N,A	1	4,5
1086	STREET	H	1	1A	10	0	0	0-0	N	0	--
1087	STRENGTH	H	3	1B	10	0	0	0-0	N	0	--
1088	STROLL	T	4	6	1	9	0	0-0	N,V	1	4
1089	STRONG	T,H	1	1A	0	0	10	0-0	A	0	--
1090	STRUCTURE	T,H	4	7	9	-1	0	0-0	N,V	1	4,5
1091	STRUGGLE	H	3	2A	8	2	0	0-0	N,V	1	--
1092	STUDENT	H	3	2B	10	0	0	0-0	N	0	--
1093	STUDY	H	1	1B	5	5	0	0-0	N,V	3	--
1094	SUBJECT	H	1	1B	8	1	1	0-0	NVA	3	--
1095	SUCCEED	H	3	2A	0	10	0	0-0	V	0	--
1096	SUCCESS	T	3	2A	10	0	0	0-0	N	0	--
1097	SUDDEN	H	1	1B	0	0	10	0-0	A	0	--
1098	SUFFER	H	1	1B	0	10	0	0-0	V	0	--
1099	SUGGEST	H	3	3A	0	10	0	0-0	V	0	--
1100	SUGGESTION	H	3	6	10	0	0	0-0	N	0	--
1101	SUIT	H	1	1B	7	3	0	0-0	N,V	3	--
1102	SUITOR	T	5	7	10	0	0	0-0	N	0	--
1103	SUMMER	H	1	1A	9	-1	0	0-0	N,V	1	--
1104	SUN	H	1	1A	9	1	0	0-0	N,V	1	--
1105	SUNNY	T	1	3B	0	0	10	0-0	A	0	--
1106	SUPPLY	T,H	3	1B	7	3	0	0-0	N,V	1	4
1107	SUPPORT	H	3	2A	4	6	0	0-0	N,V	1	--
1108	SURPRISE	H	1	1B	8	2	0	0-0	N,V	1	--
1109	SUSCEPTIBLE	T	6	8	0	0	10	0-0	A	0	--
1110	SUSPICION	T	3	5B	9	1	0	0-0	N,V	1	4
1111	SWAMP	T	1	4A	9	1	0	0-0	N,V	3	4,5
1112	SWIM	H	1	2A	4	6	0	0-0	N,V	1	--
1113	SYRUP	T	3	6	10	0	0	0-0	N	0	--
1114	TABLE	H	1	1A	9	1	0	0-0	N,V	1	--
1115	TAG	T	1	6	8	2	0	0-0	N,V	3	4
1116	TAKE	T	1	1A	-1	9	0	0-0	N,V	1	4,5
1216	WASHER	T	1	9	10	0	0	0-0	N	0	--
1117	TALK	H	1	1A	2	8	0	0-0	N,V	1	--
1118	TARRY	T	4	5A	0	9	1	0-0	V,A	4	3,4,5
1119	TASK	H	1	2B	9	-1	0	0-0	N,V	1	--
1120	TAUNT	T	6	9	5	5	0	0-0	N,V	1	--
1121	TAX	H	1	2A	9	1	0	0-0	N,V	1	--
1122	TEACH	H	1	1B	0	10	0	0-0	V	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
1123	TEACHER	H	1	1B	10	0	0	0-0	N	0	--
1124	TEAR	H	1	1B	5	5	0	0-0	N,V	2	--
1125	TELL	H	1	1A	0	10	0	0-0	V	0	--
1126	TEMPTATION	T	3	4B	10	0	0	0-0	N	0	--
1127	TENEMENT	T	5	7	10	0	0	0-0	N	0	--
1128	TENTH	T	2	3A	1	0	9	0-0	N,A	1	4
1129	TERM	H	1	2A	9	1	0	0-0	N,V	3	--
1130	TETHER	T	5	10	7	3	0	0-0	N,V	1	--
1131	THANK	H	1	1B	5	5	0	0-0	N,V	1	--
1132	THIEF	T	1	3A	10	0	0	0-0	N	0	--
1133	THINK	H	1	1A	0	10	0	0-0	V	0	--
1134	THOUGHT	H	1	1A	3	7	0	0-0	N,V	1	--
1136	THROB	T	4	9	2	8	0	0-0	N,V	1	--
1137	TIDY	T	3	10	0	1	9	0-0	V,A	3	3,4
1138	TIE	H	1	1B	3	7	0	0-0	N,V	1	--
1139	TIGER	H	1	4B	10	0	0	0-0	N	0	--
1140	TIME	H	1	1A	9	1	0	0-0	N,V	1	--
1141	TINGE	T	4	8	6	4	0	0-0	N,V	1	3,4
1142	TINY	T	1	2B	0	0	10	0-0	A	0	--
1143	TIRE	H	1	1B	1	9	0	0-0	N,V	3	--
1144	TOMBSTONE	T	2	10	10	0	0	0-0	N	0	--
1145	TOOTHPICK	T	1	9	10	0	0	0-0	N	0	--
1146	TOP	H	1	1A	9	1	0	0-0	N,V	1	--
1147	TOPIC	T,H	7	5B	10	0	0	0-0	N	0	--
1148	TOTAL	T	2	2A	3	1	6	0-0	NVA	1	4
1149	TOUCH	H	1	1B	4	6	0	0-0	N,V	1	--
1150	TOUR	T	2	7	8	2	0	0-0	N,V	1	4
1151	TOWN	H	1	1A	10	0	0	0-0	N	0	--
1152	TRADE	T,H	1	1B	8	2	0	0-0	N,V	1	4
1153	TRAIN	H	1	1A	7	3	0	0-0	N,V	4	4,5
1154	TRANCE	T	3	7	8	2	0	0-0	N,V	1	4
1155	TRANSFORMATION	T	4	8	10	0	0	0-0	N	0	--
1156	TRAVEL	H	2	2A	1	9	0	0-0	N,V	1	--
1157	TRAY	T	1	6	10	0	0	0-0	N	0	--
1158	TREACHEROUS	T	3	5A	0	0	10	0-0	A	0	--
1159	TREAT	H	1	2A	1	9	0	0-0	N,V	1	--
1160	TREE	H	1	1A	9	1	0	0-0	N,V	1	--
1161	TRIBE	H	4	2A	10	0	0	0-0	N	0	--
1162	TRIP	H	1	1B	9	1	0	0-0	N,V	2	--
1163	TRIUMPH	T	3	3B	8	2	0	0-0	N,V	1	4
1164	TROUBLE	H	1	1B	9	1	0	0-0	N,V	1	--
1165	TRUE	H	1	1A	0	0	10	0-0	A	0	--
1166	TRUST	H	1	1B	3	7	0	0-0	N,V	3	--
1167	TRUTH	H	1	1B	10	0	0	0-0	N	0	--
1168	TRY	H	1	1A	1	9	0	0-0	N,V	1	--
1169	TUNIC	T	6	10	10	0	0	0-0	N	0	--
1170	TURPENTINE	T	3	7	10	0	0	0-0	N	0	3
1171	TWINE	T	3	4A	4	6	0	0-0	N,V	1	4,5
1172	TYPE	H	3	3A	9	1	0	0-0	N,V	2	4
1173	TYRANNICAL	T	7	10	0	0	10	0-0	A	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
1174	UMPIRE	T	7	9	9	-1	0	0-0	N,V	1	--
1175	UNABLE	T,H	3	5A	0	0	10	0-0	A	0	--
1176	UNCLE	H	1	1B	10	0	0	0-0	N	0	--
1177	UNCONSCIOUS	T	3	4B	0	0	10	0-0	A	0	--
1178	UNCTUOUS	T	7	10	0	0	10	0-0	A	0	--
1179	UNDER	T	1	1A	0	0	1	9-3	NVA*	1	--
1180	UNDERSTAND	H	1	1B	0	10	0	0-0	V	0	--
1181	UNDISTURBED	T	4	6	0	0	10	0-0	A	0	3
1182	UNIFORM	T	1	3A	5	1	4	0-0	NVA	4	4
1183	UNION	H	3	1B	10	0	0	0-0	N	0	--
1184	UNITE	H	3	1B	0	10	0	0-0	V	0	--
1185	UNIVERSITY	H	3	3A	10	0	0	0-0	N	0	--
1186	UNLOAD	T	3	8	0	10	0	0-0	V	0	--
1187	UNPLEASANT	T	1	5B	0	0	10	0-0	A	0	--
1188	UNRULY	T	4	8	0	0	10	0-0	A	0	--
1189	UNTIE	T	2	7	0	10	0	0-0	V	0	--
1190	UNTO	T	4	2B	0	0	0	10-2	OT	0	--
1191	UNUSUAL	H	3	4A	0	0	10	0-0	A	0	--
1192	UPSET	H	1	5A	1	3	6	0-0	NVA	1	4
1193	USE	H	1	1A	2	8	0	0-0	N,V	1	--
1194	UTILIZE	T	5	8	0	10	0	0-0	V	0	--
1195	UTMOST	T	4	4A	0	0	10	0-0	A	0	--
1196	VALOR	T	5	5A	10	0	0	0-0	N	0	--
1197	VALUE	H	1	1B	8	2	0	0-0	N,V	1	--
1198	VARIOUS	T,H	3	2A	0	0	10	0-0	A	0	--
1199	VENOMOUS	T	7	10	0	0	10	0-0	A	0	--
1200	VIEW	H	1	1B	8	2	0	0-0	N,V	1	--
1201	VILLAGE	H	1	1B	10	0	0	0-0	N	0	--
1202	VINEYARD	T	3	6	10	0	0	0-0	N	0	--
1203	VINTAGE	T	7	9	10	0	0	0-0	N	0	--
1204	VIOLIN	H	2	5A	10	0	0	0-0	N	0	--
1205	VISION	T	3	3B	9	1	0	0-0	N,V	1	4
1206	VISIT	H	1	1A	2	8	0	0-0	N,V	1	--
1207	VOICE	H	1	1A	9	1	0	0-0	N,V	1	--
1208	VOLUNTEER	H	3	7	9	1	0	0-0	N,V	1	4
1209	VOTE	H	1	2B	2	8	0	0-0	N,V	1	--
1210	VULGAR	T	4	5B	1	0	9	0-0	N,A	1	4
1211	WAIT	H	1	1A	1	9	0	0-0	N,V	1	--
1212	WAKE	H	1	2A	1	9	0	0-0	N,V	3	--
1213	WALK	H	1	1A	2	8	0	0-0	N,V	1	--
1214	WANT	H	1	1A	1	9	0	0-0	N,V	1	--
1215	WARM	H	1	1A	0	3	7	0-0	V,A	1	4
1217	WASTE	T	1	1B	4	5	1	0-0	NVA	1	4
1218	WATCH	H	1	1A	1	9	0	0-0	N,V	3	--
1219	WAX	T	1	3A	4	6	0	0-0	N,V	3	3,4
1220	WEAKEN	T	1	6	0	10	0	0-0	V	0	3
1221	WEALTH	T	1	2A	10	0	0	0-0	N	0	--
1222	WEAPON	H	1	3A	10	0	0	0-0	N	0	--
1223	WEATHER	H	1	1B	9	1	0	0-0	N,V	1	--
1224	WEEK	H	1	1A	10	0	0	0-0	N	0	--

COMPLETE ALPHABETICAL LIST

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GP. TYPE	SM CO	DATA IN CH.
1225	WELCOME	H	1	2A	2	4	4	0-0	NVA	1	--
1226	WHICHEVER	T	3	8	0	0	5	5-4	NVA*	1	--
1227	WIDE	H	1	1A	0	0	10	0-0	A	0	--
1228	WIFE	H	1	1B	10	0	0	0-0	N	0	--
1229	WILL	H	1	1A	1	9	0	0-0	N,V	3	--
1230	WIND	H	1	1A	8	2	0	0-0	N,V	4	--
1232	WINDOW	H	1	1A	10	0	0	0-0	N	0	--
1233	WINE	H	1	2A	9	1	0	0-0	N,V	1	--
1234	WIRY	T	7	8	0	0	10	0-0	A	0	--
1235	WISH	T,H	1	1A	2	8	0	0-0	N,V	1	4,5
1236	WISP	T	7	9	10	0	0	0-0	N	0	--
1237	WITCH	T	1	3A	9	1	0	0-0	N,V	1	4
1238	WOMAN	H	1	1A	10	0	0	0-0	N	0	--
1239	WONDERFUL	H	1	1B	0	0	10	0-0	A	0	--
1240	WOODLAND	T	3	4B	10	0	0	0-0	N	0	--
1241	WORK	H	1	1A	6	4	0	0-0	N,V	1	--
1242	WORKER	H	1	3B	10	0	0	0-0	N	0	--
1243	WORLD	H	1	1A	10	0	0	0-0	N	0	--
1244	WORRY	H	1	3B	2	8	0	0-0	N,V	1	4,5
1231	WOUND	H	1	2A	2	8	0	0-0	N,V	3	--
1246	WRING	T	1	5B	0	10	0	0-0	V	0	--
1247	WRONG	H	1	1B	1	1	8	0-0	NVA	1	--
1248	YARD	H	1	1B	9	-1	0	0-0	N,V	1	--
1249	YEAR	H	1	1A	10	0	0	0-0	N	0	--
1250	YELL	T	1	4A	2	8	0	0-0	N,V	1	4,5
1251	YOLK	T	7	10	10	0	0	0-0	N	0	--
1252	YOUTH	H	1	2A	10	0	0	0-0	N	0	--
1253	ZERO	T	2	5A	9	-1	0	0-0	N,V	3	4
1254	ZIGZAG	T	3	6	-1	4	4	1-1	NVA*	1	--
1255	ZINC	T	3	7	10	0	0	0-0	N	0	--

UNAMBIGUOUS NOUNS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
1	ABILITY	H	2	4B	10	0	0	0-0	N	0	--
8	ACCOMPLICE	T	5	10	10	0	0	0-0	N	0	--
16	ACTION	H	2	2B	10	0	0	0-0	N	0	--
18	ACTIVITY	H	4	7	10	0	0	0-0	N	0	--
20	ADDITION	H	3	2B	10	0	0	0-0	N	0	--
24	ADMINISTRATION	H	3	5A	10	0	0	0-0	N	0	--
27	ADVANTAGE	H	4	2A	10	0	0	0-0	N	0	--
28	ADVERTISEMENT	T	7	7	10	0	0	0-0	N	0	--
29	ADVICE	H	2	2B	10	0	0	0-0	N	0	--
30	AFFAIR	H	4	2B	10	0	0	0-0	N	0	--
32	AFFINITY	T	7	9	10	0	0	0-0	N	0	--
35	AFTERNOON	H	1	1B	10	0	0	0-0	N	0	--
39	AGENCY	H	3	5B	10	0	0	0-0	N	0	--
43	AGREEMENT	T,H	3	5A	10	0	0	0-0	N	0	--
48	ALBUM	T	2	10	10	0	0	0-0	N	0	--
53	ALTERATION	T	4	7	10	0	0	0-0	N	0	--
54	AMATEUR	T	3	9	10	0	0	0-0	N	0	--
63	ANXIETY	H	7	8	10	0	0	0-0	N	0	--
65	APARTMENT	H	7	5A	10	0	0	0-0	N	0	--
69	APPETITE	T	3	3B	10	0	0	0-0	N	0	--
73	AREA	H	4	3A	10	0	0	0-0	N	0	--
75	ARGUMENT	H	3	3B	10	0	0	0-0	N	0	--
78	ARMY	H	1	1B	10	0	0	0-0	N	0	--
83	ARROW	H	1	2B	10	0	0	0-0	N	0	--
87	ASPECT	H	4	5B	10	0	0	0-0	N	0	--
88	ASSIGNMENT	T	3	9	10	0	0	0-0	N	0	--
89	ASSISTANCE	H	3	4A	10	0	0	0-0	N	0	--
91	ASSOCIATION	H	4	4B	10	0	0	0-0	N	0	--
96	ATTENTION	H	1	2B	10	0	0	0-0	N	0	--
98	ATTITUDE	H	4	5B	10	0	0	0-0	N	0	--
99	AUNT	H	1	2A	10	0	0	0-0	N	0	--
100	AUTHORITY	H	4	2B	10	0	0	0-0	N	0	--
115	BANKER	T	1	5B	10	0	0	0-0	N	0	--
117	BASEBALL	T	1	6	10	0	0	0-0	N	0	--
119	BASIS	H	4	4B	10	0	0	0-0	N	0	--
130	BEHALF	T	5	4A	10	0	0	0-0	N	0	--
147	BLINDNESS	T	2	5B	10	0	0	0-0	N	0	--
155	BOILER	T	1	6	10	0	0	0-0	N	0	--
159	BOOTY	T	7	7	10	0	0	0-0	N	0	--
164	BOY	H	1	1A	10	0	0	0-0	N	0	--
173	BROTHER	H	1	1A	10	0	0	0-0	N	0	--
174	BROW	T	6	2B	10	0	0	0-0	N	0	--
178	BUILDING	<TH	1	1B	10	0	0	0-0	N	0	--
180	BURNER	T	2	8	10	0	0	0-0	N	0	3
183	CAMEL	T	1	4B	10	0	0	0-0	N	0	3
187	CAR	H	1	1B	10	0	0	0-0	N	0	--
188	CARCASS	T	5	8	10	0	0	0-0	N	0	--
193	CARRIER	T	3	5A	10	0	0	0-0	N	0	--
198	CATTLE	H	1	2A	10	0	0	0-0	N	0	--
201	CAVITY	T	3	7	10	0	0	0-0	N	0	--
209	CHARACTER	H	4	2A	10	0	0	0-0	N	0	--
214	CHILD	H	1	1A	10	0	0	0-0	N	0	--
221	CITIZEN	H	1	2B	10	0	0	0-0	N	0	--
222	CITY	T,H	1	1A	10	0	0	0-0	N	0	--
224	CLAY	T	1	2B	10	0	0	0-0	N	0	--
232	COINCIDENCE	T	4	9	10	0	0	0-0	N	0	--
233	COLLEGE	H	1	2A	10	0	0	0-0	N	0	--
236	COMMANDER	T	2	4B	10	0	0	0-0	N	0	--
238	COMPETITION	T	4	6	10	0	0	0-0	N	0	3
239	COMPLAINT	T	3	4A	10	0	0	0-0	N	0	--
240	COMPLEXITY	T	6	10	10	0	0	0-0	N	0	--
244	CONFIDANT	T	4	9	10	0	0	0-0	N	0	--
247	CONGRESS	H	3	2B	10	0	0	0-0	N	0	--
248	CONNECTION	H	3	3B	10	0	0	0-0	N	0	--
255	CONTRIBUTION	T	3	7	10	0	0	0-0	N	0	--
257	CONVERSATION	H	3	3A	10	0	0	0-0	N	0	--
258	CONVENTION	H	3	4A	10	0	0	0-0	N	0	--
264	COUNSELLOR	T	4	8	10	0	0	0-0	N	0	--
265	COUNTRY	T	1	1A	10	0	0	0-0	N	0	3
267	COURAGE	H	3	2B	10	0	0	0-0	N	0	--
270	COUSIN	T	1	2A	10	0	0	0-0	N	0	3
280	CUTLERY	T	5	10	10	0	0	0-0	N	0	--
281	DAGGER	T	3	6	10	0	0	0-0	N	0	--
282	DAUGHTER	H	1	1B	10	0	0	0-0	N	0	--
284	DAY	H	1	1A	10	0	0	0-0	N	0	--
287	DEADLOCK	T	7	9	10	0	0	0-0	N	0	--
289	DEATH	H	1	1A	10	0	0	0-0	N	0	--
291	DECISION	H	3	4A	10	0	0	0-0	N	0	--
294	DEFENSE	H	1	3A	10	0	0	0-0	N	0	--
295	DELIVERY	T	2	4B	10	0	0	0-0	N	0	--
296	DELUSION	T	5	8	10	0	0	0-0	N	0	--
297	DEMOCRAT	H	4	6	10	0	0	0-0	N	0	--
299	DEPRESSION	T,H	4	7	10	0	0	0-0	N	0	--
300	DESCRIPTION	T	3	3B	10	0	0	0-0	N	0	--
307	DEVELOPMENT	H	3	4A	10	0	0	0-0	N	0	--
312	DIFFICULTY	H	2	3B	10	0	0	0-0	N	0	--
317	DIRECTION	H	1	2A	10	0	0	0-0	N	0	--
320	DISCUSSION	H	2	5B	10	0	0	0-0	N	0	--
325	DIVERSION	T	7	9	10	0	0	0-0	N	0	--
332	DOLLAR	H	1	2A	10	0	0	0-0	N	0	--
335	DOWNFALL	T	3	8	10	0	0	0-0	N	0	--
344	DUSTER	T	3	10	10	0	0	0-0	N	0	--
345	DUTY	H	1	1B	10	0	0	0-0	N	0	--
349	EDUCATION	H	2	3A	10	0	0	0-0	N	0	--
352	EFFORT	H	3	2B	10	0	0	0-0	N	0	--
356	EMPLOYEE	T	3	4B	10	0	0	0-0	N	0	--
357	EMPLOYMENT	H	4	5B	10	0	0	0-0	N	0	--
360	ENERGY	H	3	4B	10	0	0	0-0	N	0	--
365	ENTERTAINMENT	T	3	5A	10	0	0	0-0	N	0	--
373	EVENING	H	1	1B	10	0	0	0-0	N	0	--

UNAMBIGUOUS NOUNS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
374	EVENT	H	3	2A	10	0	0	0-0	N	0	--
377	EXAMPLE	H	3	2A	10	0	0	0-0	N	0	--
389	FACT	T	1	1B	10	0	0	0-0	N	0	--
391	FAILURE	H	3	5A	10	0	0	0-0	N	0	--
392	FAITH	H	1	2A	10	0	0	0-0	N	0	--
394	FAMILY	H	1	1A	10	0	0	0-0	N	0	--
414	FISHERMAN	T	1	4B	10	0	0	0-0	N	0	--
417	FLASK	T	4	9	10	0	0	0-0	N	0	--
424	FOLLY	T	4	3A	10	0	0	0-0	N	0	--
425	FOOD	H	1	1A	10	0	0	0-0	N	0	--
432	FORT	T	1	2B	10	0	0	0-0	N	0	--
438	FREEDOM	H	1	2A	10	0	0	0-0	N	0	--
439	FRIENDSHIP	H	1	3A	10	0	0	0-0	N	0	--
444	GALLEY	T	3	8	10	0	0	0-0	N	0	--
448	GENERATION	T,H	3	3B	10	0	0	0-0	N	0	--
449	GENEROSITY	T	3	7	10	0	0	0-0	N	0	--
451	GEOLOGY	T	5	10	10	0	0	0-0	N	0	--
454	GIRL	H	1	1A	10	0	0	0-0	N	0	--
458	GOAL	H	1	4B	10	0	0	0-0	N	0	--
459	GOAT	H	1	2A	10	0	0	0-0	N	0	--
466	GRANDCHILD	H	1	13	10	0	0	0-0	N	0	--
478	GUILD	T	5	9	10	0	0	0-0	N	0	--
489	HEADACHE	T	1	6	10	0	0	0-0	N	0	--
492	HEDGEHOG	T	7	6	10	0	0	0-0	N	0	--
497	HILLSIDE	T	1	4A	10	0	0	0-0	N	0	--
500	HISTORY	H	1	2A	10	0	0	0-0	N	0	--
507	HOSPITAL	H	1	3A	10	0	0	0-0	N	0	--
508	HOUR	H	1	1A	10	0	0	0-0	N	0	--
512	HUMILIATION	T	3	10	10	0	0	0-0	N	0	--
513	HUMILITY	T	6	5B	10	0	0	0-0	N	0	--
516	HUNTER	H	1	2B	10	0	0	0-0	N	0	--
520	IDEA	H	1	2A	10	0	0	0-0	N	0	--
524	IMMUNITY	T	5	10	10	0	0	0-0	N	0	--
525	IMPATIENCE	T	3	8	10	0	0	0-0	N	0	--
527	IMPORTANCE	T	2	3A	10	0	0	0-0	N	0	--
531	IMPRESSION	H	3	4A	10	0	0	0-0	N	0	--
537	INDICATION	T	3	9	10	0	0	0-0	N	0	--
538	INDIFFERENCE	T	6	7	10	0	0	0-0	N	0	--
539	INDIGNITY	T	7	10	10	0	0	0-0	N	0	--
542	INLET	T	2	9	10	0	0	0-0	N	0	--
543	INN	T	1	3B	10	0	0	0-0	N	0	--
544	INQUIRY	T	4	5B	10	0	0	0-0	N	0	--
546	INSPECTOR	T	3	6	10	0	0	0-0	N	0	--
549	INSURANCE	H	3	5B	10	0	0	0-0	N	0	--
550	INTEGRATION	H	7	18	10	0	0	0-0	N	0	--
556	ISLAND	H	1	1B	10	0	0	0-0	N	0	--
560	JANITOR	T	7	9	10	0	0	0-0	N	0	--
567	JUNCTION	T	4	9	10	0	0	0-0	N	0	--
568	JUNGLE	H	2	9	10	0	0	0-0	N	0	--
569	JURY	T	3	6	10	0	0	0-0	N	0	--
573	KINDERGARTEN	T	3	10	10	0	0	0-0	N	0	--
574	KITCHEN	H	1	2A	10	0	0	0-0	N	0	--
579	KNOWLEDGE	H	3	2A	10	0	0	0-0	N	0	--
581	LADY	H	1	1B	10	0	0	0-0	N	0	--
582	LAIR	T	4	8	10	0	0	0-0	N	0	--
585	LANGUAGE	H	1	2A	10	0	0	0-0	N	0	--
586	LANTERN	T	1	4B	10	0	0	0-0	N	0	3
591	LAUGHTER	H	3	3A	10	0	0	0-0	N	0	--
592	LAW	H	1	1A	10	0	0	0-0	N	0	--
595	LEADER	H	1	2A	10	0	0	0-0	N	0	--
596	LEADERSHIP	T,H	7	7	10	0	0	0-0	N	0	--
603	LEGISLATION	H	3	7	10	0	0	0-0	N	0	--
605	LENGTH	H	1	1A	10	0	0	0-0	N	0	--
606	LESSON	H	1	1B	10	0	0	0-0	N	0	--
611	LIBRARY	H	1	2B	10	0	0	0-0	N	0	--
614	LIFE	H	1	1A	10	0	0	0-0	N	0	--
617	LIGHTHOUSE	T	3	6	10	0	0	0-0	N	0	--
621	LIMITATION	T	4	8	10	0	0	0-0	N	0	3
625	LION	H	1	1B	10	0	0	0-0	N	0	--
632	LOBSTER	T	2	10	10	0	0	0-0	N	0	--
639	LOSS	H	1	1B	10	0	0	0-0	N	0	--
642	LOVER	H	1	2B	10	0	0	0-0	N	0	--
649	MAGGOT	T	5	8	10	0	0	0-0	N	0	--
650	MAGNET	T	2	7	10	0	0	0-0	N	0	--
653	MAJORITY	H	3	3A	10	0	0	0-0	N	0	--
657	MANNER	H	3	1B	10	0	0	0-0	N	0	--
660	MAPLE	T	1	4B	10	0	0	0-0	N	0	--
664	MARRIAGE	H	1	3A	10	0	0	0-0	N	0	--
666	MART	T	6	9	10	0	0	0-0	N	0	--
671	MEAL	H	1	2A	10	0	0	0-0	N	0	--
673	MEAT	H	1	1B	10	0	0	0-0	N	0	--
675	MEDICINE	H	1	2B	10	0	0	0-0	N	0	--
679	MEMORY	H	2	2A	10	0	0	0-0	N	0	--
682	MESSAGE	H	1	2A	10	0	0	0-0	N	0	--
684	METAPHOR	T	6	10	10	0	0	0-0	N	0	--
685	METHOD	H	3	3A	10	0	0	0-0	N	0	--
686	MICROSCOPE	T	2	7	10	0	0	0-0	N	0	--
688	MILE	H	1	1A	10	0	0	0-0	N	0	--
697	MISSILE	H	6	14	10	0	0	0-0	N	0	--
704	MOMENT	H	1	1B	10	0	0	0-0	N	0	--
705	MONEY	H	1	1A	10	0	0	0-0	N	0	--
707	MONSTER	H	3	4B	10	0	0	0-0	N	0	--
708	MONTH	H	1	1A	10	0	0	0-0	N	0	--
710	MORNING	H	1	1A	10	0	0	0-0	N	0	--
714	MOUNTAIN	H	1	1A	10	0	0	0-0	N	0	--
716	MOVEMENT	H	2	3A	10	0	0	0-0	N	0	--
717	MUD	H	1	2B	10	0	0	0-0	N	0	--
718	MURDERER	T	2	5A	10	0	0	0-0	N	0	--
720	MUSIC	H	1	1B	10	0	0	0-0	N	0	--
721	MUTTON	T	3	5B	10	0	0	0-0	N	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
725	NATION	H	2	1B	10	0	0	0-0	N	0	--
727	NATURE	H	4	1B	10	0	0	0-0	N	0	--
731	NEGLIGENCE	T	4	9	10	0	0	0-0	N	0	--
732	NEGOTIATION	T	5	7	10	0	0	0-0	N	0	--
736	NICKEL	T	1	4B	10	0	0	0-0	N	0	--
744	NOTION	T	3	3B	10	0	0	0-0	N	0	--
745	NOUN	T	4	10	10	0	0	0-0	N	0	--
748	NUISANCE	T	3	8	10	0	0	0-0	N	0	--
752	OBEDIENCE	T	2	4A	10	0	0	0-0	N	0	--
760	OFFICE	H	1	1B	10	0	0	0-0	N	0	--
765	OPERATION	H	3	2B	10	0	0	0-0	N	0	--
766	OPINION	H	3	2A	10	0	0	0-0	N	0	--
767	OPPORTUNITY	H	3	2B	10	0	0	0-0	N	0	--
768	ORCHESTRA	T	3	5B	10	0	0	0-0	N	0	3
770	ORE	T	1	10	10	0	0	0-0	N	0	--
774	OUTLET	T	3	4B	10	0	0	0-0	N	0	--
776	OVEN	T	1	3B	10	0	0	0-0	N	0	3
779	OWNER	H	1	2B	10	0	0	0-0	N	0	--
780	OXIDATION	T	5	9	10	0	0	0-0	N	0	--
788	PARADISE	T	3	3A	10	0	0	0-0	N	0	--
790	PARENT	H	1	2A	10	0	0	0-0	N	0	--
796	PATH	H	1	1B	10	0	0	0-0	N	0	--
801	PAYMENT	H	1	3B	10	0	0	0-0	N	0	--
802	PEACE	H	1	1B	10	0	0	0-0	N	0	--
804	PEASANT	H	4	4A	10	0	0	0-0	N	0	--
806	PENNY	T	1	2B	10	0	0	0-0	N	0	--
810	PERIOD	H	3	2B	10	0	0	0-0	N	0	--
813	PERSON	H	1	1A	10	0	0	0-0	N	0	--
815	PERSONALITY	H	3	7	10	0	0	0-0	N	0	--
816	PHILOSOPHY	T	5	4A	10	0	0	0-0	N	0	--
817	PHYSIOLOGY	T	4	10	10	0	0	0-0	N	0	--
823	PINEAPPLE	T	1	9	10	0	0	0-0	N	0	--
830	PLATFORM	H	1	4A	10	0	0	0-0	N	0	--
832	PLEASURE	H	1	1B	10	0	0	0-0	N	0	--
834	POD	T	3	10	10	0	0	0-0	N	0	--
835	POEM	T	1	3A	10	0	0	0-0	N	0	--
840	POLICY	H	4	3B	10	0	0	0-0	N	0	--
842	POLITICIAN	H	3	8	10	0	0	0-0	N	0	--
843	POLITICS	H	3	9	10	0	0	0-0	N	0	--
845	POPULATION	H	3	3A	10	0	0	0-0	N	0	--
846	PORTRAIT	T	3	9	10	0	0	0-0	N	0	--
847	POSSIBILITY	H	3	5A	10	0	0	0-0	N	0	--
852	POVERTY	H	4	3B	10	0	0	0-0	N	0	--
857	PRAYER	H	1	2A	10	0	0	0-0	N	0	--
865	PRESIDENT	H	3	2A	10	0	0	0-0	N	0	--
872	PRIEST	H	3	3A	10	0	0	0-0	N	0	--
874	PRINCE	T,H	1	1B	10	0	0	0-0	N	0	3
878	PROBLEM	H	3	3A	10	0	0	0-0	N	0	--
880	PROCESSION	T	4	4B	10	0	0	0-0	N	0	--
885	PROLOGUE	T	7	9	10	0	0	0-0	N	0	--

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
890	PROPOSAL	H	3	7	10	0	0	0-0	N	0	--
894	PROW	T	7	10	10	0	0	0-0	N	0	--
902	QUALIFICATION	T	3	9	10	0	0	0-0	N	0	--
912	RAINFALL	T	4	6	10	0	0	0-0	N	0	3
925	RELATIONSHIP	H	3	8	10	0	0	0-0	N	0	--
927	RELAXATION	T	3	10	10	0	0	0-0	N	0	--
934	REPORTER	T	2	9	10	0	0	0-0	N	0	--
939	RESPONSIBILITY	H	3	8	10	0	0	0-0	N	0	--
942	RETIREMENT	T	2	8	10	0	0	0-0	N	0	--
949	RIVER	H	1	1A	10	0	0	0-0	N	0	--
950	ROAD	H	1	1A	10	0	0	0-0	N	0	--
951	ROLE	H	3	9	10	0	0	0-0	N	0	--
955	ROTATION	T	2	7	10	0	0	0-0	N	0	--
963	SAUCER	T	3	6	10	0	0	0-0	N	0	--
976	SECRETARY	T	3	3B	10	0	0	0-0	N	0	--
978	SECURITY	H	3	5B	10	0	0	0-0	N	0	--
983	SEIZURE	T	4	9	10	0	0	0-0	N	0	--
988	SERF	T	4	8	10	0	0	0-0	N	0	--
990	SERVANT	H	1	2A	10	0	0	0-0	N	0	--
991	SESSION	H	3	6	10	0	0	0-0	N	0	--
996	SHEEN	T	6	10	10	0	0	0-0	N	0	--
997	SHEEP	H	1	1B	10	0	0	0-0	N	0	--
998	SHELF (SHELVES)	<TH	1	4B	10	0	0	0-0	N	0	--
1014	SICKNESS	T	1	3A	10	0	0	0-0	N	0	--
1017	SIGNIFICANCE	T	7	7	10	0	0	0-0	N	0	--
1019	SIREN	T	4	8	10	0	0	0-0	N	0	--
1020	SISTER	H	1	1A	10	0	0	0-0	N	0	--
1022	SITUATION	H	3	4A	10	0	0	0-0	N	0	--
1024	SKY	H	1	1B	10	0	0	0-0	N	0	--
1041	SOLUTION	H	3	5B	10	0	0	0-0	N	0	--
1054	SPEECH	H	1	2A	10	0	0	0-0	N	0	--
1070	STATEMENT	H	2	4A	10	0	0	0-0	N	0	--
1072	STATUS	H	6	11	10	0	0	0-0	N	0	--
1076	STIMULANT	T	6	10	10	0	0	0-0	N	0	--
1082	STORY	H	1	1A	10	0	0	0-0	N	0	--
1086	STREET	H	1	1A	10	0	0	0-0	N	0	--
1087	STRENGTH	H	3	1B	10	0	0	0-0	N	0	--
1092	STUDENT	H	3	2B	10	0	0	0-0	N	0	--
1096	SUCCESS	T	3	2A	10	0	0	0-0	N	0	--
1100	SUGGESTION	H	3	6	10	0	0	0-0	N	0	--
1102	SUITOR	T	5	7	10	0	0	0-0	N	0	--
1113	SYRUP	T	3	6	10	0	0	0-0	N	0	--
1216	WASHER	T	1	9	10	0	0	0-0	N	0	--
1123	TEACHER	H	1	1B	10	0	0	0-0	N	0	--
1126	TEMPTATION	T	3	4B	10	0	0	0-0	N	0	--
1127	TENEMENT	T	5	7	10	0	0	0-0	N	0	--
1132	THIEF	T	1	3A	10	0	0	0-0	N	0	--
1139	TIGER	H	1	4B	10	0	0	0-0	N	0	--
1144	TOMBSTONE	T	2	10	10	0	0	0-0	N	0	--
1145	TOOTHPICK	T	1	9	10	0	0	0-0	N	0	--

UNAMBIGUOUS NOUNS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
1147	TOPIC	T,H	7	5B	10	0	0	0-0	N	0	--
1151	TOWN	H	1	1A	10	0	0	0-0	N	0	--
1155	TRANSFORMATION	T	4	8	10	0	0	0-0	N	0	--
1157	TRAY	T	1	6	10	0	0	0-0	N	0	--
1161	TRIBE	H	4	2A	10	0	0	0-0	N	0	--
1167	TRUTH	H	1	1B	10	0	0	0-0	N	0	--
1169	TUNIC	T	6	10	10	0	0	0-0	N	0	--
1170	TURPENTINE	T	3	7	10	0	0	0-0	N	0	3
1176	UNCLE	H	1	1B	10	0	0	0-0	N	0	--
1183	UNION	H	3	1B	10	0	0	0-0	N	0	--
1185	UNIVERSITY	H	3	3A	10	0	0	0-0	N	0	--
1196	VALOR	T	5	5A	10	0	0	0-0	N	0	--
1201	VILLAGE	H	1	1B	10	0	0	0-0	N	0	--
1202	VINEYARD	T	3	6	10	0	0	0-0	N	0	--
1203	VINTAGE	T	7	9	10	0	0	0-0	N	0	--
1204	VIOLIN	H	2	5A	10	0	0	0-0	N	0	--
1221	WEALTH	T	1	2A	10	0	0	0-0	N	0	--
1222	WEAPON	H	1	3A	10	0	0	0-0	N	0	--
1224	WEEK	H	1	1A	10	0	0	0-0	N	0	--
1228	WIFE	H	1	1B	10	0	0	0-0	N	0	--
1232	WINDOW	H	1	1A	10	0	0	0-0	N	0	--
1236	WISP	T	7	9	10	0	0	0-0	N	0	--
1238	WOMAN	H	1	1A	10	0	0	0-0	N	0	--
1240	WOODLAND	T	3	4B	10	0	0	0-0	N	0	--
1242	WORKER	H	1	3B	10	0	0	0-0	N	0	--
1243	WORLD	H	1	1A	10	0	0	0-0	N	0	--
1249	YEAR	H	1	1A	10	0	0	0-0	N	0	--
1251	YOLK	T	7	10	10	0	0	0-0	N	0	--
1252	YOUTH	H	1	2A	10	0	0	0-0	N	0	--
1255	ZINC	T	3	7	10	0	0	0-0	N	0	--

UNAMBIGUOUS VERBS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
3	ABOLISH	T	4	5A	0	10	0	0-0	V	0	--
7	ACCEPT	H	1	2A	0	10	0	0-0	V	0	--
9	ACCOMPLISH	H	3	2B	0	10	0	0-0	V	0	--
12	ACCUMULATE	T	4	8	0	10	0	0-0	V	0	--
13	ACHIEVE	H	3	4B	0	10	0	0-0	V	0	--
23	ADJUST	H	3	6	0	10	0	0-0	V	0	--
25	ADORE	T	4	4B	0	10	0	0-0	V	0	--
33	AFFORD	H	2	4A	0	10	0	0-0	V	0	--
40	AGGRAVATE	T	5	7	0	10	0	0-0	V	0	--
42	AGREE	H	1	2A	0	10	0	0-0	V	0	--
51	ALLOW	H	1	1B	0	10	0	0-0	V	0	--
62	ANTICIPATE	T	5	7	0	10	0	0-0	V	0	--
68	APPEAR	H	1	1B	0	10	0	0-0	V	0	--
70	APPLAUD	T	3	6	0	10	0	0-0	V	0	--
71	APPLY	T,H	3	2A	0	10	0	0-0	V	0	--
74	ARGUE	H	3	5B	0	10	0	0-0	V	0	--
76	ARISE	T	1	3A	0	10	0	0-0	V	0	3
80	ARRANGE	H	3	2B	0	10	0	0-0	V	0	--
82	ARRIVE	H	1	1B	0	10	0	0-0	V	0	--
85	ASK	H	1	1A	0	10	0	0-0	V	0	--
92	ASSUME	H	3	3B	0	10	0	0-0	V	0	--
95	ATTEND	H	1	1B	0	10	0	0-0	V	0	--
105	AVOID	H	3	2B	0	10	0	0-0	V	0	--
120	BASK	T	6	10	0	10	0	0-0	V	0	--
121	BE	T	1	1A	0	10	0	0-0	V	0	--
129	BEGIN	H	1	1A	0	10	0	0-0	V	0	--
131	BELIEVE	H	1	1A	0	10	0	0-0	V	0	--
132	BELONG	H	1	1B	0	10	0	0-0	V	0	--
135	BEREAVE	T	7	9	0	10	0	0-0	V	0	--
140	BIDE	T	7	6	0	10	0	0-0	V	0	--
169	BRING	H	1	1A	0	10	0	0-0	V	0	--
194	CARRY	H	1	1A	0	10	0	0-0	V	0	--
204	CERTIFY	T	4	10	0	10	0	0-0	V	0	--
218	CHOOSE	H	1	1B	0	10	0	0-0	V	0	--
220	CIRCULATE	T	4	8	0	10	0	0-0	V	0	--
242	CONDEMN	T	4	3B	0	10	0	0-0	V	0	--
245	CONFRONT	T	5	10	0	10	0	0-0	V	0	--
246	CONFUSE	H	3	5A	0	10	0	0-0	V	0	--
249	CONSIST	T	3	2B	0	10	0	0-0	V	0	--
250	CONSIDER	H	3	2A	0	10	0	0-0	V	0	--
252	CONSTITUTE	T	6	5A	0	10	0	0-0	V	0	--
254	CONTINUE	H	2	2A	0	10	0	0-0	V	0	--
259	CONVINCE	H	2	3B	0	10	0	0-0	V	0	--
273	CREATE	H	3	2B	0	10	0	0-0	V	0	--
277	CURDLE	T	5	10	0	10	0	0-0	V	0	--
290	DECIDE	H	1	1B	0	10	0	0-0	V	0	--
298	DEMOLISH	T	3	10	0	10	0	0-0	V	0	--
305	DESTROY	H	1	1B	0	10	0	0-0	V	0	--
306	DEVELOP	H	3	3A	0	10	0	0-0	V	0	--
308	DEVOTE	H	4	3A	0	10	0	0-0	V	0	--
319	DISCUSS	H	3	4A	0	10	0	0-0	V	0	--
323	DISTRIBUTE	T	7	5A	0	10	0	0-0	V	0	3
348	EDUCATE	H	3	6	0	10	0	0-0	V	0	--
354	EMBROIDER	T	4	5B	0	10	0	0-0	V	0	--
355	EMIT	T	7	9	0	10	0	0-0	V	0	--
358	ENCIRCLE	T	3	8	0	10	0	0-0	V	0	3
361	ENJOY	H	1	1B	0	10	0	0-0	V	0	--
362	ENLIVEN	T	5	9	0	10	0	0-0	V	0	--
363	ENRAGE	T	3	6	0	10	0	0-0	V	0	--
364	ENTER	T,H	1	1B	0	10	0	0-0	V	0	3
372	ESTRANGE	T	7	10	0	10	0	0-0	V	0	--
378	EXCITE	T	3	3A	0	10	0	0-0	V	0	--
380	EXIST	H	4	4A	0	10	0	0-0	V	0	--
382	EXPLAIN	T,H	1	2A	0	10	0	0-0	V	0	3
388	FACILITATE	T	6	10	0	10	0	0-0	V	0	--
408	FOUND	H	1	1A	0	10	0	0-0	V	0	--
463	GRAB	H	1	8	0	10	0	0-0	V	0	--
467	GRATIFY	T	5	7	0	10	0	0-0	V	0	--
475	GROW	H	1	1A	0	10	0	0-0	V	0	--
480	HALLOW	T	7	5A	0	10	0	0-0	V	0	--
483	HAPPEN	H	1	1B	0	10	0	0-0	V	0	--
490	HEAR	H	1	1A	0	10	0	0-0	V	0	--
493	HEIGHTEN	T	3	9	0	10	0	0-0	V	0	--
522	ILLUSTRATE	T	3	5A	0	10	0	0-0	V	0	--
526	IMPEDE	T	7	9	0	10	0	0-0	V	0	--
532	IMPROVE	H	1	2B	0	10	0	0-0	V	0	--
533	IMPUTE	T	7	6	0	10	0	0-0	V	0	--
535	INCLUDE	H	3	2A	0	10	0	0-0	V	0	--
545	INSIST	H	3	3B	0	10	0	0-0	V	0	--
554	INVITE	H	1	2A	0	10	0	0-0	V	0	--
564	JOIN	H	1	1B	0	10	0	0-0	V	0	--
575	KNEAD	T	4	8	0	10	0	0-0	V	0	--
578	KNOW	H	1	1A	0	10	0	0-0	V	0	--
598	LEARN	H	1	1A	0	10	0	0-0	V	0	--
619	LIKEN	T	7	7	0	10	0	0-0	V	0	--
626	LISTEN	H	1	1B	0	10	0	0-0	V	0	--
638	LOSE	H	1	1B	0	10	0	0-0	V	0	--
648	MADDEN	T	7	10	0	10	0	0-0	V	0	--
651	MAINTAIN	H	4	2B	0	10	0	0-0	V	0	--
656	MANAGE	H	7	2B	0	10	0	0-0	V	0	--
665	MARRY	H	1	2A	0	10	0	0-0	V	0	--
676	MEDITATE	T	5	5B	0	10	0	0-0	V	0	--
691	MINGLE	T	4	3B	0	10	0	0-0	V	0	--
702	MOISTEN	T	3	6	0	10	0	0-0	V	0	--
703	MOLEST	T	5	7	0	10	0	0-0	V	0	--
751	NURTURE	T	6	9	0	10	0	0-0	V	0	--
755	OBSERVE	H	3	2A	0	10	0	0-0	V	0	--
756	OCCUR	H	3	2B	0	10	0	0-0	V	0	--
764	OPERATE	H	3	5B	0	10	0	0-0	V	0	--
771	ORGANIZE	T	3	4B	0	10	0	0-0	V	0	3

UNAMBIGUOUS VERBS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
789	PARALYZE	T	2	8	0	10	0	0-0	V	0	--
793	PARTICIPATE	H	4	7	0	10	0	0-0	V	0	--
856	PRAY	H	1	2A	0	10	0	0-0	V	0	--
858	PREDICT	T	4	7	0	10	0	0-0	V	0	3
859	PREFER	H	3	2A	0	10	0	0-0	V	0	--
861	PREPARE	H	1	1B	0	10	0	0-0	V	0	--
862	PRESCRIBE	T	3	4A	0	10	0	0-0	V	0	--
868	PRETEND	H	2	3B	0	10	0	0-0	V	0	--
869	PREVENT	H	3	2A	0	10	0	0-0	V	0	--
887	PROMOTE	T	3	6	0	10	0	0-0	V	0	--
892	PROTECT	H	1	2A	0	10	0	0-0	V	0	--
893	PROVE	H	1	1B	0	10	0	0-0	V	0	--
915	REACT	T	5	10	0	10	0	0-0	V	0	--
916	READ	H	1	1A	0	10	0	0-0	V	0	--
920	RECOMMEND	T	3	3B	0	10	0	0-0	V	0	--
924	RELATE	T,H	2	3A	0	10	0	0-0	V	0	--
929	REMEMBER	H	1	1A	0	10	0	0-0	V	0	--
930	REMIND	H	1	4A	0	10	0	0-0	V	0	--
932	RENOUNCE	T	7	5A	0	10	0	0-0	V	0	3
935	REPRESS	T	7	9	0	10	0	0-0	V	0	--
981	SEEK	H	1	1B	0	10	0	0-0	V	0	--
982	SEEM	H	1	1A	0	10	0	0-0	V	0	--
985	SEND	T,H	1	1A	0	10	0	0-0	V	0	3
993	SETTLE	H	1	1B	0	10	0	0-0	V	0	--
995	SHATTER	T	4	4B	0	10	0	0-0	V	0	--
999	SHELVE	T	7	7	0	10	0	0-0	V	0	3
1011	SHRUNK	T	7	9	0	10	0	0-0	V	0	--
1012	SHUT	H	1	1B	0	10	0	0-0	V	0	--
1021	SIT	H	1	1A	0	10	0	0-0	V	0	--
1032	SMUGGLE	T	3	9	0	10	0	0-0	V	0	--
1037	SOFTEN	T	2	4B	0	10	0	0-0	V	0	3
1042	SOLVE	H	3	3B	0	10	0	0-0	V	0	--
1051	SPEAK	H	1	7	0	10	0	0-0	V	0	--
1055	SPEND	H	1	1B	0	10	0	0-0	V	0	--
1095	SUCCEED	H	3	2A	0	10	0	0-0	V	0	--
1098	SUFFER	H	1	1B	0	10	0	0-0	V	0	--
1099	SUGGEST	H	3	3A	0	10	0	0-0	V	0	--
1122	TEACH	H	1	1B	0	10	0	0-0	V	0	--
1125	TELL	H	1	1A	0	10	0	0-0	V	0	--
1133	THINK	H	1	1A	0	10	0	0-0	V	0	--
1180	UNDERSTAND	H	1	1B	0	10	0	0-0	V	0	--
1184	UNITE	H	3	1B	0	10	0	0-0	V	0	--
1186	UNLOAD	T	3	8	0	10	0	0-0	V	0	--
1189	UNTIE	T	2	7	0	10	0	0-0	V	0	--
1194	UTILIZE	T	5	8	0	10	0	0-0	V	0	--
1220	WEAKEN	T	1	6	0	10	0	0-0	V	0	3
1246	WRING	T	1	5B	0	10	0	0-0	V	0	--

UNAMBIGUOUS ADJECTIVES

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
2	ABLE	H	1	1B	0	0	10	0-0	A	0	--
5	ABSURD	T	5	6	0	0	10	0-0	A	0	3
19	ACTUAL	H	3	2B	0	0	10	0-0	A	0	--
22	ADEQUATE	H	5	8	0	0	10	0-0	A	0	--
34	AFRAID	H	1	1B	0	0	10	0-0	A	0	3
41	AGGRESSIVE	H	7	9	0	0	10	0-0	A	0	--
44	AGRICULTURAL	H	3	4B	0	0	10	0-0	A	0	--
50	ALIVE	H	1	2A	0	0	10	0-0	A	0	--
52	ALONE	H	1	1A	0	0	10	0-0	A	0	--
59	ANGRY	H	1	2A	0	0	10	0-0	A	0	--
64	ANXIOUS	H	3	2B	0	0	10	0-0	A	0	--
66	APPARENT	H	4	4B	0	0	10	0-0	A	0	--
102	AVAILABLE	T,H	4	8	0	0	10	0-0	A	0	--
104	AVERSE	T	7	9	0	0	10	0-0	A	0	--
106	AWARE	H	1	5B	0	0	10	0-0	A	0	--
107	AWFUL	H	1	2B	0	0	10	0-0	A	0	--
126	BEASTLY	T	7	8	0	0	10	0-0	A	0	--
128	BEAUTIFUL	H	1	1A	0	0	10	0-0	A	0	--
133	BELOVED	T	3	3B	0	0	10	0-0	A	0	--
141	BIG	H	1	1A	0	0	10	0-0	A	0	--
157	BONNY	T	7	10	0	0	10	0-0	A	0	--
163	BOUNTIFUL	T	6	10	0	0	10	0-0	A	0	--
170	BRISK	T	3	5A	0	0	10	0-0	A	0	--
186	CAPRICIOUS	T	7	10	0	0	10	0-0	A	0	--
215	CHILLY	T	1	8	0	0	10	0-0	A	0	3
223	CIVIC	T	5	9	0	0	10	0-0	A	0	--
268	COURAGEOUS	T	3	6	0	0	10	0-0	A	0	--
272	CRAFTY	T	5	8	0	0	10	0-0	A	0	--
286	DEAD	H	1	1A	0	0	10	0-0	A	0	--
304	DESPERATE	T	5	4A	0	0	10	0-0	A	0	3
311	DIFFICULT	H	7	2A	0	0	10	0-0	A	0	--
314	DINGY	T	3	9	0	0	10	0-0	A	0	--
343	DURABLE	T	4	7	0	0	10	0-0	A	0	3
350	EDUCATIONAL	H	3	8	0	0	10	0-0	A	0	--
366	ENTIRE	H	3	1B	0	0	10	0-0	A	0	--
375	EVERY	H	1	1A	0	0	10	0-0	A	0	--
376	EVERYDAY	T	1	7	0	0	10	0-0	A	0	--
395	FAMISHED	T	4	8	0	0	10	0-0	A	0	--
406	FINANCIAL	H	4	5B	0	0	10	0-0	A	0	--
422	FLUENT	T	5	9	0	0	10	0-0	A	0	--
429	FOREIGN	H	3	2A	0	0	10	0-0	A	0	--
435	FRAGILE	T	3	8	0	0	10	0-0	A	0	3
450	GEOGRAPHICAL	T	4	8	0	0	10	0-0	A	0	--
455	GLAD	H	1	1A	0	0	10	0-0	A	0	--
484	HAPPY	H	1	1A	0	0	10	0-0	A	0	--
485	HARMONIOUS	T	3	7	0	0	10	0-0	A	0	--
503	HONEST	T	1	2A	0	0	10	0-0	A	0	3
521	IDENTICAL	T	4	7	0	0	10	0-0	A	0	--
523	IMMEDIATE	T,H	3	2A	0	0	10	0-0	A	0	--
528	IMPORTANT	H	1	1B	0	0	10	0-0	A	0	--
529	IMPOSSIBLE	T,H	1	2B	0	0	10	0-0	A	0	--
587	LARGE	H	1	1A	0	0	10	0-0	A	0	--
589	LATE	H	1	1A	0	0	10	0-0	A	0	--
590	LATTER	H	4	2B	0	0	10	0-0	A	0	--
604	LEGISLATIVE	T	7	9	0	0	10	0-0	A	0	--
627	LITTLE	H	1	1A	0	0	10	0-0	A	0	--
629	LIVELY	T	1	3A	0	0	10	0-0	A	0	--
634	LONESOME	T	1	5A	0	0	10	0-0	A	0	3
647	MAD	H	1	2A	0	0	10	0-0	A	0	--
674	MEDICAL	H	3	5B	0	0	10	0-0	A	0	--
680	MENTAL	H	3	7	0	0	10	0-0	A	0	--
683	METALLIC	T	5	8	0	0	10	0-0	A	0	--
695	MIRTHFUL	T	7	9	0	0	10	0-0	A	0	--
705	MONETARY	H	7	17	0	0	10	0-0	A	0	--
722	MUTUAL	H	5	4B	0	0	10	0-0	A	0	--
724	NAMELESS	T	4	6	0	0	10	0-0	A	0	--
734	NERVOUS	H	2	4B	0	0	10	0-0	A	0	--
737	NIMBLE	T	6	5B	0	0	10	0-0	A	0	--
747	NUCLEAR	H	7	17	0	0	10	0-0	A	0	--
749	NUMEROUS	T	3	3A	0	0	10	0-0	A	0	--
757	ODIOUS	T	7	6	0	0	10	0-0	A	0	--
763	OLD	H	1	1A	0	0	10	0-0	A	0	--
803	PEACEFUL	H	1	3B	0	0	10	0-0	A	0	--
812	PERSISTENT	T	5	8	0	0	10	0-0	A	0	--
831	PLEASANT	H	1	1B	0	0	10	0-0	A	0	--
841	POLITICAL	H	4	4A	0	0	10	0-0	A	0	--
848	POSSIBLE	H	1	1B	0	0	10	0-0	A	0	--
854	PRACTICAL	H	5	3A	0	0	10	0-0	A	0	--
860	PREGNANT	H	4	7	0	0	10	0-0	A	0	--
870	PREVIOUS	H	3	4A	0	0	10	0-0	A	0	--
877	PROBABLE	H	4	2B	0	0	10	0-0	A	0	--
884	PROLIFIC	H	7	8	0	0	10	0-0	A	0	--
889	PROPER	H	1	1B	0	0	10	0-0	A	0	--
909	RACIAL	H	4	10	0	0	10	0-0	A	0	--
913	RAINY	T	1	4A	0	0	10	0-0	A	0	3
917	READY	H	1	1A	0	0	10	0-0	A	0	--
918	REAL	T	1	1B	0	0	10	0-0	A	0	3
922	RECTANGULAR	T	3	8	0	0	10	0-0	A	0	--
928	RELIABLE	T	3	6	0	0	10	0-0	A	0	--
938	RESPECTFUL	T	3	5B	0	0	10	0-0	A	0	--
962	SANE	T	4	8	0	0	10	0-0	A	0	--
969	SCIENTIFIC	T	3	7	0	0	10	0-0	A	0	--
989	SERIOUS	H	3	2B	0	0	10	0-0	A	0	--
1013	SICK	H	1	1B	0	0	10	0-0	A	0	--
1018	SIMILAR	H	3	3B	0	0	10	0-0	A	0	--
1030	SMALL	H	1	1A	0	0	10	0-0	A	0	--
1040	SOLUBLE	T	5	8	0	0	10	0-0	A	0	--
1043	SORDID	T	7	8	0	0	10	0-0	A	0	--
1045	SORRY	H	1	2A	0	0	10	0-0	A	0	--
1050	SPARSE	T	6	10	0	0	10	0-0	A	0	--

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     UNAMBIGUOUS ADJECTIVES                                                                       PAGE  21

WORD                                        MGF VECTOR    GR. SM DATA
  #    WORD              SMPL   D TH     N   V   A OT   TYPE CO  IN
                                                                 CH.
1083 STRANGE (-ER)       <TH    1   1B   0   0 10   0-0   A    0  --
1089 STRONG              T,H    1   1A   0   0 10   0-0   A    0  --
1097 SUDDEN               H     1   1B   0   0 10   0-0   A    0  --
1105 SUNNY                T     1   3B   0   0 10   0-0   A    0  --
1109 SUSCEPTIBLE          T     6   8    0   0 10   0-0   A    0  --
1142 TINY                 T     1   2B   0   0 10   0-0   A    0  --
1158 TREACHEROUS          T     3   5A   0   0 10   0-0   A    0  --
1165 TRUE                 H     1   1A   0   0 10   0-0   A    0  --
1173 TYRANNICAL           T     7 10     0   0 10   0-0   A    0  --
1175 UNABLE              T,H    3   5A   0   0 10   0-0   A    0  --
1177 UNCONSCIOUS          T     3   4B   0   0 10   0-0   A    0  --
1178 UNCTUOUS             T     7 10     0   0 10   0-0   A    0  --
1181 UNDISTURBED          T     4   6    0   0 10   0-0   A    0   3
1187 UNPLEASANT           T     1   5B   0   0 10   0-0   A    0  --
1188 UNRULY               T     4   8    0   0 10   0-0   A    0  --
1191 UNUSUAL              H     3   4A   0   0 10   0-0   A    0  --
1195 UTMOST               T     4   4A   0   0 10   0-0   A    0  --
1198 VARIOUS             T,H    3   2A   0   0 10   0-0   A    0  --
1199 VENOMOUS             T     7 10     0   0 10   0-0   A    0  --
1227 WIDE                 H     1   1A   0   0 10   0-0   A    0  --
1234 WIRY                 T     7   8    0   0 10   0-0   A    0  --
1239 WONDERFUL            H     1   1B   0   0 10   0-0   A    0  --
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NOUN-VERB WORDS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
11	ACCOUNT	H	1	1B	9	1	0	0-0	N,V	1	--
14	ACKNOWLEDGE	T	4	4A	-1	9	0	0-0	N,V	1	4
15	ACT	H	1	1B	3	7	0	0-0	N,V	1	--
21	ADDRESS	H	1	2A	5	5	0	0-0	N,V	2	--
26	ADVANCE	H	2	2A	1	9	0	0-0	N,V	1	--
31	AFFECT	T	3	3A	1	9	0	0-0	N,V	1	4
36	AGE	T,H	1	1B	9	1	0	0-0	N,V	1	4,5
45	AID	H	1	2A	8	2	0	0-0	N,V	1	--
46	AIM	H	1	2B	7	3	0	0-0	N,V	1	--
47	AIR	H	1	1A	9	1	0	0-0	N,V	1	--
56	AMOUNT	H	1	1B	8	2	0	0-0	N,V	1	--
57	ANCHOR	T	2	3B	6	4	0	0-0	N,V	1	4
58	ANGER	H	1	2A	8	2	0	0-0	N,V	1	--
61	ANSWER	H	1	1A	4	6	0	0-0	N,V	1	--
67	APPEAL	H	3	3A	5	5	0	0-0	N,V	1	4,5
72	APPROACH	H	2	2A	3	7	0	0-0	N,V	1	--
77	ARM	H	1	1A	9	1	0	0-0	N,V	4	--
81	ARREST	H	2	4A	6	4	0	0-0	N,V	1	4
90	ASSOCIATE	H	3	3B	3	7	0	0-0	N,V	1	4
93	ATTACK	H	1	2B	7	3	0	0-0	N,V	1	--
94	ATTEMPT	H	3	2A	6	4	0	0-0	N,V	1	--
97	ATTIRE	T	6	4B	9	1	0	0-0	N,V	1	4
111	BADGER	T,H	4	7	9	1	0	0-0	N,V	4	3,4
112	BALANCE	T	3	2B	5	5	0	0-0	N,V	3	4
113	BAND	H	1	1B	9	1	0	0-0	N,V	3	--
114	BANK	H	1	1A	9	1	0	0-0	N,V	3	--
116	BAR	H	1	2A	7	3	0	0-0	N,V	3	--
122	BEACH	H	1	2B	9	1	0	0-0	N,V	1	--
123	BEAR	H	1	1A	6	4	0	0-0	N,V	4	--
134	BENEFIT	H	3	2B	7	3	0	0-0	N,V	1	--
139	BIAS	T	7	6	9	-1	0	0-0	N,V	3	4
142	BILL	H	1	1B	9	1	0	0-0	N,V	3	--
143	BIRD	H	1	1A	9	-1	0	0-0	N,V	1	--
146	BIT	H	1	1B	9	1	0	0-0	N,V	4	--
145	BITE	H	1	2A	5	5	0	0-0	N,V	1	--
148	BLOCK	H	1	2A	7	3	0	0-0	N,V	3	--
149	BLOOD	H	1	1B	9	-1	0	0-0	N,V	1	--
150	BLOSSOM	T	1	2A	8	2	0	0-0	N,V	1	3,4
151	BLOUSE	T	2	7	9	-1	0	0-0	N,V	1	4,5
152	BLOW	H	1	1A	3	7	0	0-0	N,V	2	--
153	BOARD	H	1	1B	8	2	0	0-0	N,V	2	--
154	BODY	H	1	1A	9	-1	0	0-0	N,V	1	--
156	BONE	H	1	1B	9	-1	0	0-0	N,V	1	--
158	BOOK	H	1	1A	9	1	0	0-0	N,V	3	--
124	BORE	H	2	2B	1	9	0	0-0	N,V	3	--
162	BOTHER	H	1	4A	1	9	0	0-0	N,V	1	4,5
165	BRACE	T	3	4B	3	7	0	0-0	N,V	3	4
166	BREAK	H	1	1B	1	9	0	0-0	N,V	1	--
168	BRIDGE	H	1	1B	9	1	0	0-0	N,V	1	--
171	BROCADE	T	5	9	9	-1	0	0-0	N,V	1	--
175	BUBBLE	T	1	3A	7	3	0	0-0	N,V	1	4,5
176	BUFFALO	H	1	6	9	-1	0	0-0	N,V	1	4,5
177	BUILD	T,H	1	1A	1	9	0	0-0	N,V	1	--
181	BUSTLE	T	5	7	6	4	0	0-0	N,V	4	4
182	BUY	H	1	3A	1	9	0	0-0	N,V	1	4,5
185	CAN	H	1	1A	1	9	0	0-0	N,V	3	--
189	CARD	H	1	2A	9	1	0	0-0	N,V	2	--
191	CARE	H	1	1A	5	5	0	0-0	N,V	1	--
192	CAREER	H	3	4B	9	-1	0	0-0	N,V	1	4
195	CAST	H	0	2A	2	8	0	0-0	N,V	3	--
196	CAT	H	1	2A	9	-1	0	0-0	N,V	1	--
197	CATCH	H	1	1B	1	9	0	0-0	N,V	1	--
199	CAUSE	H	1	1A	4	6	0	0-0	N,V	3	--
200	CAVE	H	1	2B	9	1	0	0-0	N,V	1	--
202	CELL	T	1	3A	9	-1	0	0-0	N,V	3	4
203	CENTER	H	1	1B	7	3	0	0-0	N,V	1	--
206	CHANGE	H	1	1A	5	5	0	0-0	N,V	3	--
207	CHANNEL	T	3	3B	9	1	0	0-0	N,V	1	4,5
208	CHAPTER	H	3	4A	9	-1	0	0-0	N,V	1	4
210	CHART	T	1	5B	9	1	0	0-0	N,V	1	3,4
211	CHECK	H	1	2A	5	5	0	0-0	N,V	3	--
216	CHISEL	T	2	6	4	6	0	0-0	N,V	1	3,4
219	CHURCH	H	1	1A	9	-1	0	0-0	N,V	1	--
226	CLENCH	T	3	9	2	8	0	0-0	N,V	1	--
227	CLIMB	H	1	2A	1	9	0	0-0	N,V	1	--
229	CLOTHE (S)	H	4	1B	9	1	0	0-0	N,V	1	--
230	CLOWN	T	1	7	9	-1	0	0-0	N,V	1	4
231	CLUB	H	1	2B	9	1	0	0-0	N,V	3	--
235	COMMAND	T	2	1B	4	6	0	0-0	N,V	1	4
237	COMMENT	H	3	6	7	3	0	0-0	N,V	1	4
241	CONCERN	H	3	2B	3	7	0	0-0	N,V	3	--
253	CONTACT	H	3	7	9	1	0	0-0	N,V	1	--
256	CONTROL	H	3	2B	6	4	0	0-0	N,V	1	--
260	COOK	H	1	1B	2	8	0	0-0	N,V	1	--
261	COPY	T	1	2A	8	2	0	0-0	N,V	1	4
262	CORNER	H	1	1B	9	1	0	0-0	N,V	1	--
263	COSTUME	T	3	5B	9	1	0	0-0	N,V	1	4
266	COUPLE	H	2	2B	9	1	0	0-0	N,V	1	--
269	COURT	H	1	1B	8	2	0	0-0	N,V	4	--
271	COW	H	1	1B	9	1	0	0-0	N,V	4	--
274	CROUCH	T	3	5B	1	9	0	0-0	N,V	1	4
275	CROWD	T	1	1B	7	3	0	0-0	N,V	1	4
276	CRY	H	1	1B	2	8	0	0-0	N,V	1	--
278	CURE	H	1	2B	2	8	0	0-0	N,V	3	--
283	DAWN	H	1	2A	7	3	0	0-0	N,V	1	--
285	DAZZLE	T	3	5A	1	9	0	0-0	N,V	1	3,4
288	DEAL	H	1	1B	7	3	0	0-0	N,V	3	--
292	DECK	T	1	2B	8	2	0	0-0	N,V	3	4
301	DESERT	H	1	2A	8	2	0	0-0	N,V	4	--
302	DESIGN	H	3	3A	5	5	0	0-0	N,V	1	4

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      NOUN-VERB WORDS                                                                                          PAGE   23

WORD                                MGE VECTOR   GR. SM DATA    WORD                                MGE VECTOR   GR. SM DATA
  #     WORD          SMPL  D TH    N  V  A OT   TYPE CO  IN      #     WORD          SMPL  D TH    N  V  A OT   TYPE CO  IN
                                                            CH.                                                                CH.
 303 DESIRE            H    1  1B   7  3  0  0-0 N,V  1  --     434 FRACTURE          T    3  9    9  1  0  0-0 N,V  1  --
 309 DIAL              T    3  6    9  1  0  0-0 N,V  1   4     436 FRAY              T    6  6    7  3  0  0-0 N,V  2   4
 310 DIE              T,H   1  1A   1  9  0  0-0 N,V  3  --     442 FUNCTION          H    3  5A   5  5  0  0-0 N,V  1   4
 313 DIGEST            T    3  7    2  8  0  0-0 N,V  1   4     443 GAIN              H    1  1B   2  8  0  0-0 N,V  1  --
 315 DIP               T    1  3A   2  8  0  0-0 N,V  3  3,4    446 GARDEN            H    1  1A   9  1  0  0-0 N,V  1  --
 318 DISCIPLINE        H    5  8    4  6  0  0-0 N,V  3  --     453 GIRDLE            T    4  4B   7  3  0  0-0 N,V  1   4
 321 DISEASE           T    3  2B   9  1  0  0-0 N,V  1   4     456 GLANCE            T    1  2B   6  4  0  0-0 N,V  3  3,4
 322 DISK              T    4  9    9 -1  0  0-0 N,V  1  --     464 GRADE             H    1  2B   8  2  0  0-0 N,V  1  --
 324 DISUSE            T    7 10    8  2  0  0-0 N,V  1  --     470 GRIN              T    2  4B   4  6  0  0-0 N,V  1   4
 326 DIVIDE           T,H   1  1B  -1  9  0  0-0 N,V  1   4     471 GRIND             H    1  2B   1  9  0  0-0 N,V  1  --
 327 DIVORCE           H    3  4B   7  3  0  0-0 N,V  1   4     474 GROUP             H    1  2B   9  1  0  0-0 N,V  1  --
 329 DOCK              T    1  4A   9  1  0  0-0 N,V  3   4     476 GROWL             T    2  5A   3  7  0  0-0 N,V  1   4
 330 DOCTOR            H    1  1B   9  1  0  0-0 N,V  1  --     477 GUESS             H    1  1B   1  9  0  0-0 N,V  1  --
 334 DOUBT             H    3  1B   6  4  0  0-0 N,V  1  --     479 GUN               H    1  2A   9  1  0  0-0 N,V  1  --
 336 DREAM             H    1  1B   3  7  0  0-0 N,V  1  --     481 HAND              H    1  1A   8  2  0  0-0 N,V  1  --
 337 DRINK             H    1  1A   2  8  0  0-0 N,V  1  --     482 HANDLE            H    1  2A   2  8  0  0-0 N,V  3  --
 339 DRIVE             H    1  1A   2  8  0  0-0 N,V  3  --     486 HATE              H    1  2A   3  7  0  0-0 N,V  1  --
 340 DRUG              H    1  3B   9  1  0  0-0 N,V  1  4,5    487 HAZE              T    3  9    9 -1  0  0-0 N,V  2  --
 346 EARTH             H    1  8    9 -1  0  0-0 N,V  1  --     488 HEAD              H    1  1A   9  1  0  0-0 N,V  3  --
 347 ECLIPSE           T    3  6    8  2  0  0-0 N,V  1  4,5    491 HEDGE             T    3  3A   9  1  0  0-0 N,V  2  4,5
 351 EFFECT           T,H   4  2A   8  2  0  0-0 N,V  1   4     494 HELP              H    1  1A   3  7  0  0-0 N,V  1  --
 359 END              T,H   1  1A   8  2  0  0-0 N,V  1  4,5    496 HIDE              H    1  1B   1  9  0  0-0 N,V  3  --
 370 ESCAPE            H    1  1B   2  8  0  0-0 N,V  1  --     498 HILT              T    5 10    9 -1  0  0-0 N,V  1  --
 371 ESTIMATE          T    3  4A   3  7  0  0-0 N,V  1   4     499 HIRE              T    1  2B   1  9  0  0-0 N,V  1   4
 384 EXTRACT           T    4  5B   4  6  0  0-0 N,V  1   4     501 HIT               H    1  2B   1  9  0  0-0 N,V  1  --
 386 EYE               H    1  1A   9  1  0  0-0 N,V  1  --     502 HOIST             T    4  7    2  8  0  0-0 N,V  1  4,5
 387 FACE              H    1  1A   6  4  0  0-0 N,V  1  --     504 HONEYCOMB         T    3  6    9 -1  0  0-0 N,V  1   4
 390 FACTOR            H    4  7    9  1  0  0-0 N,V  4  --     505 HOPE              H    1  1A   5  5  0  0-0 N,V  1  --
 393 FALL              H    1  1A   2  8  0  0-0 N,V  3  --     509 HUDDLE            T    3  7    1  9  0  0-0 N,V  1  3,4
 396 FAVOR             H    1  1B   7  3  0  0-0 N,V  3  --     510 HULL              T    2  8    9 -1  0  0-0 N,V  3  --
 397 FEATHER           H    1  2A   7  3  0  0-0 N,V  1  --     511 HUM               T    1  3B   4  6  0  0-0 N,V  1  4,5
 399 FEEL              H    1  1A   1  9  0  0-0 N,V  1  --     515 HUNT              H    1  1B   1  9  0  0-0 N,V  1  --
 402 FEVER             T    1  2B   9 -1  0  0-0 N,V  1   4     517 HURT              H    1  1B   1  9  0  0-0 N,V  1  --
 403 FIELD             H    1  1A   9  1  0  0-0 N,V  3  --     518 HUSBAND           H    1  1B   9  1  0  0-0 N,V  1  --
 404 FIGHT             H    1  1B   5  5  0  0-0 N,V  1  --     519 HUT               H    1  3A   9 -1  0  0-0 N,V  1   4
 405 FILL             T,H   1  1A  -1  9  0  0-0 N,V  1  4,5    530 IMPRESS           H    3  5A   1  9  0  0-0 N,V  1  4,5
 407 FIND              H    1  1A   1  9  0  0-0 N,V  1  --     534 INCENSE           T    4  4A   5  5  0  0-0 N,V  3  4,5
 410 FINISH            H    1  1B   1  9  0  0-0 N,V  1  --     536 INCREASE          H    3  1B   5  5  0  0-0 N,V  1  --
 411 FIRE              H    1  1A   8  2  0  0-0 N,V  1  --     541 INFLUENCE         H    3  2B   5  5  0  0-0 N,V  1  --
 413 FISH              H    1  1B   7  3  0  0-0 N,V  1  --     547 INSTANCE         T,H   5  3A   9  1  0  0-0 N,V  1  --
 415 FIST              T    1  3B   9 -1  0  0-0 N,V  1   4     553 INTEREST         T,H   3  1B   6  4  0  0-0 N,V  3   4
 416 FIX               H    1  1B   1  9  0  0-0 N,V  1  --     557 ISSUE             H    3  2A   9  1  0  0-0 N,V  2   4
 419 FLIRT             T    3  6    4  6  0  0-0 N,V  1   4     559 ITCH              T    2  6    8  2  0  0-0 N,V  1   4
 420 FLOOR             H    1  1A   9  1  0  0-0 N,V  1  --     561 JAW               T    1  3A   9  1  0  0-0 N,V  1   4
 421 FLOWER            H    1  1A   9  1  0  0-0 N,V  1  --     562 JOB               H    1  3A   9  1  0  0-0 N,V  1   4
 423 FOIL              T    3  5B   4  6  0  0-0 N,V  3   4     563 JOG               T    5 10    1  9  0  0-0 N,V  2  --
 426 FOOT              H    1  1A   9 -1  0  0-0 N,V  1  --     565 JUDGE             H    1  1B   5  5  0  0-0 N,V  1  --
 427 FORCE             H    3  1B   6  4  0  0-0 N,V  1  --     566 JUMP              T    1  2A   2  8  0  0-0 N,V  1  3,4
 428 FORECAST          T    3 10    1  9  0  0-0 N,V  1  --     570 KICK              H    1  2B   1  9  0  0-0 N,V  1   4
 430 FORM              H    1  1A   7  3  0  0-0 N,V  1  --     571 KID               H    1  2B   9  1  0  0-0 N,V  4  --
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WORD					MGF VECTOR				GR.	SM	DATA
#	WORD	SMPL	D	TH	N	V	A	OT	TYPE	CO	IN CH.
572	KILL	H	1	1A	-1	9	0	0-0	N,V	1	--
576	KNIFE	H	1	2A	9	1	0	0-0	N,V	1	--
577	KNOT	T	1	3B	7	3	0	0-0	N,V	3	4,5
580	LABOR	H	3	1B	9	1	0	0-0	N,V	1	--
583	LAKE	H	1	1B	9	-1	0	0-0	N,V	1	--
584	LAND	H	1	1A	8	2	0	0-0	N,V	1	--
600	LEAVE	H	1	1A	1	9	0	0-0	N,V	3	--
607	LET	H	1	1A	-1	9	0	0-0	N,V	3	--
608	LETTER	H	1	1A	9	-1	0	0-0	N,V	1	--
612	LIE	H	1	1B	4	6	0	0-0	N,V	2	--
620	LIMIT	H	2	2A	8	2	0	0-0	N,V	1	--
623	LINE	H	1	1A	9	1	0	0-0	N,V	3	4,5
624	LINK	T	7	3B	4	6	0	0-0	N,V	3	4
630	LOAD	H	1	1B	8	2	0	0-0	N,V	1	--
631	LOAN	H	1	7	9	1	0	0-0	N,V	1	4
633	LODGE	H	4	2A	7	3	0	0-0	N,V	1	--
636	LOOK	H	1	1B	2	8	0	0-0	N,V	1	--
637	LORD	H	1	1B	9	1	0	0-0	N,V	1	--
641	LOVE	H	1	1A	4	6	0	0-0	N,V	1	--
654	MAKE	H	1	1A	1	9	0	0-0	N,V	1	--
655	MAN	H	1	1A	9	1	0	0-0	N,V	1	--
658	MANUFACTURE	T	3	2B	4	6	0	0-0	N,V	1	4
659	MAP	T	1	2A	9	1	0	0-0	N,V	1	4
661	MARCH	H	1	1B	6	4	0	0-0	N,V	3	--
662	MARK	H	1	1A	8	2	0	0-0	N,V	3	--
663	MARKET	H	1	1B	9	1	0	0-0	N,V	1	--
667	MASS	H	3	2A	9	1	0	0-0	N,V	1	--
668	MASTER	H	1	1B	7	3	0	0-0	N,V	1	--
669	MATTER	H	1	1A	7	3	0	0-0	N,V	4	--
677	MEET	H	1	1A	-1	9	0	0-0	N,V	1	--
681	MENTION	H	2	2A	2	8	0	0-0	N,V	1	--
687	MIGHT	H	1	1A	2	8	0	0-0	N,V	3	--
689	MILL	T	1	1B	9	1	0	0-0	N,V	1	4,5
690	MIND	H	1	1A	8	2	0	0-0	N,V	4	--
692	MINISTER	H	2	2B	9	1	0	0-0	N,V	1	--
696	MISS	T,H	1	1A	1	9	0	0-0	N,V	3	4
698	MIST	T	3	3A	9	-1	0	0-0	N,V	1	4
699	MISTAKE	H	1	2A	9	1	0	0-0	N,V	1	--
700	MIX	H	1	2A	1	9	0	0-0	N,V	1	--
711	MOTHER	H	1	1A	9	-1	0	0-0	N,V	1	--
713	MOTOR	T	1	4A	8	2	0	0-0	N,V	1	4,5
715	MOVE	H	1	1A	2	8	0	0-0	N,V	1	--
719	MUSHROOM	T	2	8	9	-1	0	0-0	N,V	1	--
723	NAME	T,H	1	1A	8	2	0	0-0	N,V	1	4,5
729	NECK	H	1	1B	9	1	0	0-0	N,V	1	--
730	NEED	H	1	1A	4	6	0	0-0	N,V	1	--
733	NEIGHBOR	H	1	1B	9	-1	0	0-0	N,V	1	--
735	NIBBLE	T	1	6	3	7	0	0-0	N,V	1	4,5
740	NOISE	T	1	2A	9	-1	0	0-0	N,V	1	4
743	NOSE	H	1	1B	9	1	0	0-0	N,V	1	--
750	NURSE	H	1	2A	9	1	0	0-0	N,V	1	--
753	OBJECT	H	2	1B	7	3	0	0-0	N,V	4	4
759	OFFER	H	1	1B	2	8	0	0-0	N,V	1	--
761	OFFICER	H	1	3A	9	-1	0	0-0	N,V	1	4
769	ORDER	H	1	1A	8	2	0	0-0	N,V	2	--
773	OUTLAW	T	3	10	8	2	0	0-0	N,V	1	--
775	OUTRAGE	T	5	6	7	3	0	0-0	N,V	1	4,5
777	OVERTURN	T	1	5A	1	9	0	0-0	N,V	1	4,5
781	PACE	H	1	2B	8	2	0	0-0	N,V	1	--
782	PACK	T,H	1	2A	4	6	0	0-0	N,V	3	4
783	PAGE	T	1	1B	9	-1	0	0-0	N,V	2	4,5
784	PAIN	H	1	1B	9	1	0	0-0	N,V	1	--
785	PAINT	H	1	1B	5	5	0	0-0	N,V	1	--
786	PAPER	H	1	1A	9	1	0	0-0	N,V	1	--
787	PARACHUTE	H	3	12	9	1	0	0-0	N,V	1	--
791	PARROT	T	2	5B	9	-1	0	0-0	N,V	1	4,5
794	PARTNER	H	1	3B	9	-1	0	0-0	N,V	1	4
795	PASS	H	1	1A	1	9	0	0-0	N,V	1	--
798	PATTER	T	1	7	6	4	0	0-0	N,V	1	4
799	PATTERN	H	4	2B	9	1	0	0-0	N,V	1	--
800	PAY	H	1	1A	2	8	0	0-0	N,V	3	--
807	PENSION	T	7	6	9	1	0	0-0	N,V	1	4,5
808	PEOPLE	H	1	1A	9	1	0	0-0	N,V	1	--
811	PERMIT	H	3	2A	1	9	0	0-0	N,V	1	--
818	PICK	T,H	1	1B	1	9	0	0-0	N,V	3	4
819	PICTURE	H	1	1A	9	1	0	0-0	N,V	1	--
820	PIECE	H	1	1A	9	1	0	0-0	N,V	3	--
821	PIG	H	1	2A	9	-1	0	0-0	N,V	1	--
822	PIKE	T	4	7	9	-1	0	0-0	N,V	3	4
824	PLACE	H	1	1A	8	2	0	0-0	N,V	1	--
826	PLAN	H	1	1B	7	3	0	0-0	N,V	1	--
827	PLANE	H	1	4B	9	1	0	0-0	N,V	3	4,5
828	PLANK	T	2	5A	9	1	0	0-0	N,V	3	4,5
829	PLANT	H	1	1A	5	5	0	0-0	N,V	1	--
833	POCKET	H	1	2A	9	1	0	0-0	N,V	1	--
837	POINT	H	1	1A	7	3	0	0-0	N,V	1	--
838	POLE	H	1	2A	9	1	0	0-0	N,V	1	--
839	POLICE	H	1	4A	9	1	0	0-0	N,V	1	4,5
844	POLL	T	4	4B	8	2	0	0-0	N,V	1	4,5
849	POST	H	1	1B	8	2	0	0-0	N,V	3	--
850	POT	H	1	2A	9	1	0	0-0	N,V	3	--
851	POUND	H	1	1B	7	3	0	0-0	N,V	3	--
855	PRACTICE	H	2	1B	3	7	0	0-0	N,V	3	--
864	PRESERVE	T	3	2A	1	9	0	0-0	N,V	1	4
866	PRESS	H	3	1B	5	5	0	0-0	N,V	2	--
867	PRESSURE	H	3	5A	9	1	0	0-0	N,V	1	4,5
871	PRICE	H	1	1B	9	1	0	0-0	N,V	1	--
879	PROCEED	H	3	2A	1	9	0	0-0	N,V	1	--
881	PROGRAM	H	2	5B	9	1	0	0-0	N,V	1	4
882	PROGRESS	H	4	3A	7	3	0	0-0	N,V	1	4

NOUN-VERB WORDS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	MGF VECTOR V	MGF VECTOR A	MGF VECTOR OT	GR. TYPE	SM CO	DATA IN CH.
883	PROJECT	H	4	5A	9	1	0	0-0	N,V	3	4
886	PROMISE	H	1	1B	4	6	0	0-0	N,V	1	--
891	PROPOSITION	T	4	5B	9	-1	0	0-0	N,V	1	4
895	PROWL	T	3	9	-1	9	0	0-0	N,V	1	--
896	PRY	T	3	8	-1	9	0	0-0	N,V	2	--
898	PULL	H	1	1B	1	9	0	0-0	N,V	1	--
899	PURPOSE	H	7	1B	9	-1	0	0-0	N,V	1	--
900	PUSH	H	1	2A	1	9	0	0-0	N,V	1	--
901	PYRAMID	T	3	7	9	-1	0	0-0	N,V	1	4
903	QUARANTINE	T	3	10	9	-1	0	0-0	N,V	1	--
904	QUESTION	H	1	1B	9	1	0	0-0	N,V	1	--
906	QUIVER	T	3	4B	2	8	0	0-0	N,V	3	4
907	RABBIT	H	1	2B	9	-1	0	0-0	N,V	1	--
908	RACE	H	1	1B	9	1	0	0-0	N,V	3	--
911	RAIN	H	1	1A	6	4	0	0-0	N,V	1	--
914	REACH	H	1	1A	1	9	0	0-0	N,V	1	--
919	REASON	H	1	1A	9	1	0	0-0	N,V	1	--
921	RECORD	H	1	2A	9	1	0	0-0	N,V	1	--
923	REGARD	H	3	2A	6	4	0	0-0	N,V	1	--
931	RENDER	T	6	2B	1	9	0	0-0	N,V	3	4
933	REPORT	H	1	1B	5	5	0	0-0	N,V	3	--
936	RESERVE	H	4	3A	6	4	0	0-0	N,V	1	4
937	RESPECT	H	3	2A	5	5	0	0-0	N,V	3	--
940	REST	H	1	1A	7	3	0	0-0	N,V	2	--
941	RESULT	H	3	2A	7	3	0	0-0	N,V	1	--
944	RICE	H	1	3A	9	-1	0	0-0	N,V	1	4
945	RIFT	T	7	9	9	-1	0	0-0	N,V	1	--
947	PISE	H	1	1B	3	7	0	0-0	N,V	1	--
952	ROLL	H	1	1A	1	9	0	0-0	N,V	3	--
953	ROOM	H	1	1A	9	1	0	0-0	N,V	1	--
956	ROVE	T	3	4A	-1	9	0	0-0	N,V	1	4
958	RUN	T,H	1	1A	2	8	0	0-0	N,V	1	4
959	RUSH	H	1	1B	1	9	0	0-0	N,V	3	--
961	SAND	H	1	1B	9	-1	0	0-0	N,V	1	--
966	SAY	H	1	1A	1	9	0	0-0	N,V	1	--
967	SCARE	H	1	3A	1	9	0	0-0	N,V	1	4,5
968	SCHOOL	H	1	1A	9	1	0	0-0	N,V	1	--
970	SCISSOR	T	2	5A	9	-1	0	0-0	N,V	1	4
971	SCOOP	T	3	6	2	8	0	0-0	N,V	1	4
972	SCREAM	H	1	3A	1	9	0	0-0	N,V	1	4
973	SCREEN	T	1	4A	9	1	0	0-0	N,V	3	3,4
974	SEARCH	H	1	2A	2	8	0	0-0	N,V	1	--
975	SEASON	T	1	1B	9	1	0	0-0	N,V	3	4,5
979	SEE (SAW)	H	1	1A	-1	9	0	0-0	N,V	4	--
980	SAW <SEE	H	1	1A	1	9	0	0-0	N,V	3	--
984	SELL	H	1	2A	-1	9	0	0-0	N,V	1	--
986	SENSE	H	1	2A	8	2	0	0-0	N,V	1	--
994	SHAPE	H	1	1B	8	2	0	0-0	N,V	1	--
1000	SHELL	H	1	2A	9	1	0	0-0	N,V	1	--
1002	SHIFT	H	3	3B	9	1	0	0-0	N,V	1	4
1003	SHOCK	H	1	2B	5	5	0	0-0	N,V	3	--
1004	SHOE	H	1	1B	9	1	0	0-0	N,V	1	--
1005	SHOP	H	1	1B	8	2	0	0-0	N,V	1	--
1006	SHOOT (SHOT)	H	1	2A	1	9	0	0-0	N,V	3	--
1009	SHOUT	H	1	1B	3	7	0	0-0	N,V	1	--
1010	SHOW	H	1	1A	1	9	0	0-0	N,V	1	--
1015	SIGHT	T	1	1A	9	1	0	0-0	N,V	1	4,5
1016	SIGN	H	1	1B	8	2	0	0-0	N,V	1	--
1023	SKIRT	T	1	2A	7	3	0	0-0	N,V	4	4,5
1025	SLAVE	H	1	2A	9	1	0	0-0	N,V	1	--
1026	SLEEP	H	1	1A	3	7	0	0-0	N,V	1	--
1027	SLEIGH	T	1	5A	8	2	0	0-0	N,V	1	4,5
1028	SLIT	T	1	9	8	2	0	0-0	N,V	1	--
1029	SLOPE	T	2	2B	8	2	0	0-0	N,V	1	4
1031	SMILE	H	1	1B	5	5	0	0-0	N,V	1	--
1033	SNAKE	H	1	3B	9	-1	0	0-0	N,V	1	4,5
1034	SNATCH	T	2	3B	1	9	0	0-0	N,V	1	4
1035	SNOW	H	1	1B	8	2	0	0-0	N,V	1	--
1036	SOCKET	T	3	6	9	-1	0	0-0	N,V	1	4
1038	SOLDIER	H	1	1A	9	-1	0	0-0	N,V	1	--
1044	SORROW	T	1	2A	9	1	0	0-0	N,V	1	4
1046	SORT	H	1	1B	7	3	0	0-0	N,V	3	--
1053	SPEAR	H	1	3A	8	2	0	0-0	N,V	1	4,5
1056	SPIRIT	H	1	1B	9	1	0	0-0	N,V	1	--
1057	SPIT	H	1	4B	5	5	0	0-0	N,V	3	4
1058	SPITE	H	5	2A	9	1	0	0-0	N,V	4	--
1059	SPLINTER	T	3	7	7	3	0	0-0	N,V	1	4,5
1052	SPOKE <SPEAK	<TH	1	1B	-1	9	0	0-0	N,V	4	--
1061	SPORT	H	1	2A	9	1	0	0-0	N,V	2	--
1062	SPOT	H	1	1B	9	1	0	0-0	N,V	3	--
1063	STAIN	T	3	3A	3	7	0	0-0	N,V	1	4
1064	STAMMER	T	4	6	-1	9	0	0-0	N,V	1	4
1065	STAND	H	1	1A	2	8	0	0-0	N,V	1	--
1067	STAR	T	1	1B	9	1	0	0-0	N,V	1	4
1068	START	H	1	1A	1	9	0	0-0	N,V	3	--
1069	STATE	H	1	1A	8	2	0	0-0	N,V	4	--
1071	STATION	H	1	1B	8	2	0	0-0	N,V	1	--
1073	STAY	H	1	1A	1	9	0	0-0	N,V	2	--
1074	STEER	H	1	3B	1	9	0	0-0	N,V	3	4
1075	STICK	H	1	1B	5	5	0	0-0	N,V	3	--
1077	STIR	T	1	2A	2	8	0	0-0	N,V	1	4
1078	STONE	H	1	1A	9	1	0	0-0	N,V	1	--
1079	STOP	H	1	1A	1	9	0	0-0	N,V	1	--
1080	STORE	H	1	1B	9	1	0	0-0	N,V	1	--
1081	STORM	H	1	1B	9	1	0	0-0	N,V	1	--
1088	STROLL	T	4	6	1	9	0	0-0	N,V	1	4
1090	STRUCTURE	T,H	4	7	9	-1	0	0-0	N,V	1	4,5
1091	STRUGGLE	H	3	2A	8	2	0	0-0	N,V	1	--
1093	STUDY	H	1	1B	5	5	0	0-0	N,V	3	--
1101	SUIT	H	1	1B	7	3	0	0-0	N,V	3	--

NOUN-VERB WORDS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
1103	SUMMER	H	1	1A	9	-1	0	0-0	N,V	1	--
1104	SUN	H	1	1A	9	1	0	0-0	N,V	1	--
1106	SUPPLY	T,H	3	1B	7	3	0	0-0	N,V	1	4
1107	SUPPORT	H	3	2A	4	6	0	0-0	N,V	1	--
1108	SURPRISE	H	1	1B	8	2	0	0-0	N,V	1	--
1110	SUSPICION	T	3	5B	9	1	0	0-0	N,V	1	4
1111	SWAMP	T	1	4A	9	1	0	0-0	N,V	3	4,5
1112	SWIM	H	1	2A	4	6	0	0-0	N,V	1	--
1114	TABLE	H	1	1A	9	1	0	0-0	N,V	1	--
1115	TAG	T	1	6	8	2	0	0-0	N,V	3	4
1116	TAKE	T	1	1A	-1	9	0	0-0	N,V	1	4,5
1117	TALK	H	1	1A	2	8	0	0-0	N,V	1	--
1119	TASK	H	1	2B	9	-1	0	0-0	N,V	1	--
1120	TAUNT	T	6	9	5	5	0	0-0	N,V	1	--
1121	TAX	H	1	2A	9	1	0	0-0	N,V	1	--
1124	TEAR	H	1	1B	5	5	0	0-0	N,V	2	--
1129	TERM	H	1	2A	9	1	0	0-0	N,V	3	--
1130	TETHER	T	5	10	7	3	0	0-0	N,V	1	--
1131	THANK	H	1	1B	5	5	0	0-0	N,V	1	--
1134	THOUGHT	H	1	1A	3	7	0	0-0	N,V	1	--
1136	THROB	T	4	9	2	8	0	0-0	N,V	1	--
1138	TIE	H	1	1B	3	7	0	0-0	N,V	1	--
1140	TIME	H	1	1A	9	1	0	0-0	N,V	1	--
1141	TINGE	T	4	8	6	4	0	0-0	N,V	1	3,4
1143	TIRE	H	1	1B	1	9	0	0-0	N,V	3	--
1146	TOP	H	1	1A	9	1	0	0-0	N,V	1	--
1149	TOUCH	H	1	1B	4	6	0	0-0	N,V	1	--
1150	TOUR	T	2	7	8	2	0	0-0	N,V	1	4
1152	TRADE	T,H	1	1B	8	2	0	0-0	N,V	1	4
1153	TRAIN	H	1	1A	7	3	0	0-0	N,V	4	4,5
1154	TRANCE	T	3	7	8	2	0	0-0	N,V	1	4
1156	TRAVEL	H	2	2A	1	9	0	0-0	N,V	1	--
1159	TREAT	H	1	2A	1	9	0	0-0	N,V	1	--
1160	TREE	H	1	1A	9	1	0	0-0	N,V	1	--
1162	TRIP	H	1	1B	9	1	0	0-0	N,V	2	--
1163	TRIUMPH	T	3	3B	8	2	0	0-0	N,V	1	4
1164	TROUBLE	H	1	1B	9	1	0	0-0	N,V	1	--
1166	TRUST	H	1	1B	3	7	0	0-0	N,V	3	--
1168	TRY	H	1	1A	1	9	0	0-0	N,V	1	--
1171	TWINE	T	3	4A	4	6	0	0-0	N,V	1	4,5
1172	TYPE	H	3	3A	9	1	0	0-0	N,V	2	4
1174	UMPIRE	T	7	9	9	-1	0	0-0	N,V	1	--
1193	USE	H	1	1A	2	8	0	0-0	N,V	1	--
1197	VALUE	H	1	1B	8	2	0	0-0	N,V	1	--
1200	VIEW	H	1	1B	8	2	0	0-0	N,V	1	--
1205	VISION	T	3	3B	9	1	0	0-0	N,V	1	4
1206	VISIT	H	1	1A	2	8	0	0-0	N,V	1	--
1207	VOICE	H	1	1A	9	1	0	0-0	N,V	1	--
1208	VOLUNTEER	H	3	7	9	1	0	0-0	N,V	1	4
1209	VOTE	H	1	2B	2	8	0	0-0	N,V	1	--
1211	WAIT	H	1	1A	1	9	0	0-0	N,V	1	--
1212	WAKE	H	1	2A	1	9	0	0-0	N,V	3	--
1213	WALK	H	1	1A	2	8	0	0-0	N,V	1	--
1214	WANT	H	1	1A	1	9	0	0-0	N,V	1	--
1218	WATCH	H	1	1A	1	9	0	0-0	N,V	3	--
1219	WAX	T	1	3A	4	6	0	0-0	N,V	3	3,4
1223	WEATHER	H	1	1B	9	1	0	0-0	N,V	1	--
1229	WILL	H	1	1A	1	9	0	0-0	N,V	3	--
1230	WIND	H	1	1A	8	2	0	0-0	N,V	4	--
1233	WINE	H	1	2A	9	1	0	0-0	N,V	1	--
1235	WISH	T,H	1	1A	2	8	0	0-0	N,V	1	4,5
1237	WITCH	T	1	3A	9	1	0	0-0	N,V	1	4
1241	WORK	H	1	1A	6	4	0	0-0	N,V	1	--
1244	WORRY	H	1	3B	2	8	0	0-0	N,V	1	4,5
1231	WOUND	H	1	2A	2	8	0	0-0	N,V	3	--
1248	YARD	H	1	1B	9	-1	0	0-0	N,V	1	--
1250	YELL	T	1	4A	2	8	0	0-0	N,V	1	4,5
1253	ZERO	T	2	5A	9	-1	0	0-0	N,V	3	4

NOUN-ADJECTIVE WORDS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	MGF VECTOR V	MGF VECTOR A	MGF VECTOR DT	GR. TYPE	SM CO	DATA IN CH.
4	ABSOLUTE	T	4	2B	-1	0	9	0-0	N,A	1	--
6	ACADEMIC	H	7	8	-1	0	9	0-0	N,A	1	--
17	ACTIVE	H	2	3B	-1	0	9	0-0	N,A	1	--
79	AROMATIC	T	7	8	2	0	8	0-0	N,A	1	--
101	AUTO	T	1	5A	9	0	1	0-0	N,A	1	4
110	BAD	H	1	1A	-1	0	9	0-0	N,A	1	--
118	BASIC	H	3	11	-1	0	9	0-0	N,A	1	--
190	CARDINAL	T	3	6	7	0	3	0-0	N,A	3	3,4
217	CHOCOLATE	T	1	4A	9	0	-1	0-0	N,A	1	4
251	CONSONANT	T	7	8	3	0	7	0-0	N,A	4	--
293	DEEP	H	1	1A	-1	0	9	0-0	N,A	1	--
342	DUE	H	1	2A	2	0	8	0-0	N,A	1	4
353	ELDER	T,H	1	3B	2	0	8	0-0	N,A	1	3,4
367	EPIDEMIC	T	4	8	8	0	2	0-0	N,A	1	3,4,5
369	EQUIVALENT	T	4	7	3	0	7	0-0	N,A	1	4
381	EXPEDIENT	T	7	7	7	0	3	0-0	N,A	1	4
385	EXTREME	H	4	2B	2	0	8	0-0	N,A	1	--
398	FEDERAL	H	3	5B	-1	0	9	0-0	N,A	1	--
431	FORMER	T	4	1B	1	0	9	0-0	N,A	1	4
445	GAME	H	1	1B	9	0	1	0-0	N,A	3	4,5
447	GENERAL	H	1	1A	1	0	9	0-0	N,A	4	3,4
452	GIANT	H	1	2A	7	0	3	0-0	N,A	1	4
460	GOOD (S)	<TH	1	1A	2	0	8	0-0	N,A	3	--
468	GRAVE	H	1	2A	8	0	2	0-0	N,A	4	4,5
514	HUNDRED	T,H	1	1A	5	0	5	0-0	N,A	1	4
540	INDIVIDUAL	H	3	3A	7	0	3	0-0	N,A	1	3,4
548	INSTANT	T	1	2B	9	0	1	0-0	N,A	1	3,4
551	INTELLECTUAL	H	5	7	3	0	7	0-0	N,A	1	4
552	INTERNATIONAL	T	5	8	1	0	9	0-0	N,A	1	--
555	IRREGULAR	T	3	4B	-1	0	9	0-0	N,A	1	--
610	LIBERAL	T	5	4A	3	0	7	0-0	N,A	3	4
694	MINUTE	H	1	1B	9	0	1	0-0	N,A	4	4
701	MODERN	H	2	2B	-1	0	9	0-0	N,A	1	--
709	MORAL	H	4	3A	1	0	9	0-0	N,A	1	3,4
726	NATIONAL	T,H	3	2B	1	0	9	0-0	N,A	1	4
728	NECESSARY	H	2	1B	-1	0	9	0-0	N,A	1	--
738	NINE	T	1	1B	1	0	9	0-0	N,A	1	4
741	NORMAL	H	2	5A	-1	0	9	0-0	N,A	1	--
742	NORTHEAST	T	2	7	3	0	7	0-0	N,A	1	4
746	NOVEL	T	3	5A	8	0	2	0-0	N,A	4	4,5
754	OBJECTIVE	H	6	14	7	0	3	0-0	N,A	4	--
758	OFFENSIVE	H	5	7	-1	0	9	0-0	N,A	3	--
762	OFFICIAL	H	3	3A	5	0	5	0-0	N,A	1	3,4
792	PARTICIPANT	H	5	16	9	0	1	0-0	N,A	0	--
797	PATIENT	H	3	2B	7	0	3	0-0	N,A	3	4
805	PENITENT	T	6	7	4	0	6	0-0	N,A	1	3,4
814	PERSONAL	T,H	3	3B	-1	0	9	0-0	N,A	0	3
825	PLAIN	T,H	1	1A	3	0	7	0-0	N,A	4	4
836	POETIC (S)	T	5	6	-1	0	9	0-0	N,A	1	4
873	PRIMARY	H	3	5B	1	0	9	0-0	N,A	3	3,4,5
875	PRINCIPAL	H	3	2B	1	0	9	0-0	N,A	1	--
876	PRIVATE	H	3	2A	1	0	9	0-0	N,A	4	4,5
897	PUBLIC	T,H	1	2B	3	0	7	0-0	N,A	1	4
910	RADICAL	T	5	7	-1	0	9	0-0	N,A	3	3,4
926	RELATIVE	H	3	3A	7	0	3	0-0	N,A	4	4
943	REVEREND	T	4	4B	-1	0	9	0-0	N,A	1	4
957	ROYAL	T	1	2A	1	0	9	0-0	N,A	1	4
960	SAFFRON	T	7	10	6	0	4	0-0	N,A	1	--
964	SAVAGE	T	1	2B	4	0	6	0-0	N,A	1	3,4
1039	SOLITARY	T	4	4A	2	0	8	0-0	N,A	1	4
1066	STANDARD	H	3	2B	7	0	3	0-0	N,A	3	4
1084	STRANGER	T	1	2B	9	0	-1	0-0	N,A	1	4,5
1128	TENTH	T	2	3A	1	0	9	0-0	N,A	1	4
1210	VULGAR	T	4	5B	1	0	9	0-0	N,A	1	4

VERB-ADJECTIVE WORDS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	DT	GR. TYPE	SM CO	DATA IN CH.
37	AGED	H	1	6	0	5	5	0-0	V,A	1	4
60	ANIMATE	T	7	6	0	9	1	0-0	V,A	1	3,4,5
462	BEST	<TH	1	1A	0	1	9	0-0	V,A	1	--
167	BROKE	H	1	2B	0	9	1	0-0	V,A	1	4,5
212	CHECKED	H	7	2A	0	8	2	0-0	V,A	3	--
316	DIRECT	H	1	1B	0	6	4	0-0	V,A	3	3,4
328	DIZZY	T	2	6	0	1	9	0-0	V,A	1	3,4
379	EXEMPT	T	5	6	0	5	5	0-0	V,A	1	3,4
437	FREE	H	1	1A	0	1	9	0-0	V,A	1	3,4,5
601	LEFT	H	1	1A	0	8	2	0-0	V,A	4	4
615	LIVE	T	1	1A	0	9	1	0-0	V,A	1	3,4,5
635	LONG	H	1	1A	0	1	9	0-0	V,A	4	--
643	LOW	<TH	1	1A	0	-1	9	0-0	V,A	4	--
644	LOWER	H	1	1B	0	3	7	0-0	V,A	1	--
670	MATURE	T	4	4A	0	5	5	0-0	V,A	1	3,4
678	MELLOW	T	5	5A	0	1	9	0-0	V,A	1	4,5
809	PERFECT	H	2	1B	0	1	9	0-0	V,A	1	--
977	SECURE	H	3	2A	0	8	2	0-0	V,A	1	4
987	SEPARATE	H	1	1B	0	3	7	0-0	V,A	1	4
1049	SPARE	H	4	2A	0	8	2	0-0	V,A	4	3,4
1118	TARRY	T	4	5A	0	9	1	0-0	V,A	4	3,4,5
1137	TIDY	T	3	10	0	1	9	0-0	V,A	3	3,4
1215	WARM	H	1	1A	0	3	7	0-0	V,A	1	4

NOUN-VERB-ADJECTIVE WORDS

WORD #	WORD	SMPL	D	TH	MGF VECTOR N	V	A	OT	GR. TYPE	SM CO	DATA IN CH.
49	ALERT	T	3	8	3	-1	6	0-0	NVA	1	--
103	AVERAGE	H	3	3A	3	1	6	0-0	NVA	1	--
108	BABY	T,H	1	1B	8	1	1	0-0	NVA	1	4
109	BACK	H	1	1A	7	1	2	0-0	NVA	3	--
127	BEAT	H	1	1B	1	8	1	0-0	NVA	3	--
125	BORING	H	7	2B	1	2	7	0-0	NVA	3	--
184	CAMP	T,H	1	2A	7	2	-1	0-0	NVA	1	4
205	CHANCE	T,H	1	1B	8	1	1	0-0	NVA	1	4,5
225	CLEAR	H	1	1A	1	3	6	0-0	NVA	1	--
228	CLOSE	H	1	1A	1	3	6	0-0	NVA	1	--
234	COLOR	H	1	1A	7	2	1	0-0	NVA	1	--
243	CONDITION	H	3	1B	8	1	1	0-0	NVA	1	--
279	CUT	H	1	1A	2	7	1	0-0	NVA	1	--
331	DOG	H	1	1B	8	1	1	0-0	NVA	1	--
333	DOUBLE	H	1	1B	1	3	6	0-0	NVA	1	--
338	DRUNK	H	1	4B	2	1	7	0-0	NVA	1	4
368	EQUAL	H	1	1B	1	1	8	0-0	NVA	1	--
383	EXPRESS	H	4	1B	1	8	1	0-0	NVA	3	--
400	FELT	H	1	1B	1	8	1	0-0	NVA	3	--
409	FINE	H	1	1A	1	1	8	0-0	NVA	3	--
412	FIRM	H	3	1B	2	1	7	0-0	NVA	3	--
440	FRONT	H	1	1A	5	1	4	0-0	NVA	1	--
457	GLARE	T	3	4A	5	4	1	0-0	NVA	1	4
465	GRADUATE	H	3	4A	3	3	4	0-0	NVA	1	4
469	GREEN	T	1	1A	2	-1	7	0-0	NVA	1	4
472	GROUND	H	1	1A	8	1	1	0-0	NVA	3	--
506	HORSE	H	1	1A	8	-1	-1	0-0	NVA	1	--
613	LAY	H	1	1A	1	8	1	0-0	NVA	3	--
594	LEAD	H	1	1A	1	8	1	0-0	NVA	3	--
597	LEAN	T,H	1	2A	1	7	2	0-0	NVA	2	4
609	LEVEL	H	1	2A	8	1	1	0-0	NVA	1	--
616	LIGHT	H	1	1A	4	2	4	0-0	NVA	3	--
618	LIKE	H	1	1A	1	4	5	0-0	NVA	3	--
622	LIMP	T	1	5B	1	3	6	0-0	NVA	4	3,4
652	MAJOR	H	1	4A	3	2	5	0-0	NVA	3	4
672	MEAN	H	1	1A	1	7	2	0-0	NVA	3	--
712	MOTIVE	T	4	3B	8	-1	1	0-0	NVA	1	4
778	OWN	H	1	1A	1	2	7	0-0	NVA	3	--
863	PRESENT	H	1	1A	1	2	7	0-0	NVA	3	--
888	PROMPT	T	3	2B	1	4	5	0-0	NVA	3	4
946	RIGHT	H	1	1A	4	1	5	0-0	NVA	3	--
948	ROSE	H	1	1B	4	2	4	0-0	NVA	3	--
992	SET	H	1	1A	2	7	1	0-0	NVA	3	--
1007	SHOT <SHOOT	H	1	2A	2	7	1	0-0	NVA	1	--
1047	SOUND	H	1	1A	6	3	1	0-0	NVA	3	--
1094	SUBJECT	H	1	1B	8	1	1	0-0	NVA	3	--
1148	TOTAL	T	2	2A	3	1	6	0-0	NVA	1	4
1182	UNIFORM	T	1	3A	5	1	4	0-0	NVA	4	4
1192	UPSET	H	1	5A	1	3	6	0-0	NVA	1	4
1217	WASTE	T	1	1B	4	5	1	0-0	NVA	1	4
1225	WELCOME	H	1	2A	2	4	4	0-0	NVA	1	--
1247	WRONG	H	1	1B	1	1	8	0-0	NVA	1	--

FORM IA

APPENDIX B. Sample Form Used in the Pilot Experiment of Chapter III.

We want to find out how you and others in your grade use certain words.

Look at each word and make up a short, complete sentence that shows how you might use it. Write the first sentence that you think of.

Then, if you can think of other ways to use the word, write one or two more sentences.

To give you the idea, here are some words that have already been put into sentences:

ASHORE

1. The man came ashore.
2. ________________________________
3. ________________________________

CAMP

1. The camp was on a lake.
2. It was too cold to camp out.
3. ________________________________

LEAN

1. The man leaned against the wall.
2. I like lean meat.
3. ________________________________

Now try this one yourself:

CROSS

1. ________________________________
2. ________________________________
3. ________________________________

In the rest of this booklet, write one, two, or three sentences for each of the words that are given. It is up to you to decide how many sentences you write for each word.

Please do not turn the page until you are told to do so.

FORM IA-1

COUNTRY

1. ______________________________
2. ______________________________
3. ______________________________

SAVAGE

1. ______________________________
2. ______________________________
3. ______________________________

SEND

1. ______________________________
2. ______________________________
3. ______________________________

LIVE

1. ______________________________
2. ______________________________
3. ______________________________

COUSIN

1. ______________________________
2. ______________________________
3. ______________________________

BLOSSOM

1. ______________________________
2. ______________________________
3. ______________________________

FORM IA-2

REAL

1. ______

2. ______

3. ______

GENERAL

1. ______

2. ______

3. ______

ENTER

1. ______

2. ______

3. ______

FREE

1. ______

2. ______

3. ______

EXPLAIN

1. ______

2. ______

3. ______

GLANCE

1. ______

2. ______

3. ______

FORM IA-3

HONEST

1. ______

2. ______

3. ______

INSTANT

1. ______

2. ______

3. ______

AFRAID

1. ______

2. ______

3. ______

DIRECT

1. ______

2. ______

3. ______

PRINCE

1. ______

2. ______

3. ______

JUMP

1. ______

2. ______

3. ______

ETS-777-01 FORM 1-A

APPENDIX C. Sample Form Used in the Normative Study of Chapter IV.

We want to find out how you and others in your grade use certain words.

For each word write two short, complete sentences showing that you know how to use that word. Write the first sentence that you think of. Then, write another sentence using the word in a different way.

To give you the idea, here are some words that have already been put into sentences:

right

1. Turn right at the corner.
2. I have the right answer.

paint

1. Paint the sky blue.
2. Don't spill your paint.

clear

1. It is clear and sunny today.
2. Clear the table when you finish.

Now try this one yourself:

rest

1. ______________________________
2. ______________________________

In the rest of this booklet, write two sentences for each of the words that are given.

Please do not turn the page until you are told to do so.

1-A-1

1. jump
   1.____
   2.____
2. free
   1.____
   2.____
3. savage
   1.____
   2.____
4. public
   1.____
   2.____
5. kick
   1.____
   2.____
6. disease
   1.____
   2.____
7. stranger
   1.____
   2.____
8. slope
   1.____
   2.____
9. preserve
   1.____
   2.____

10. warm
    1.______________________________
    2.______________________________

11. total
    1.______________________________
    2.______________________________

12. patient
    1.______________________________
    2.______________________________

13. crowd
    1.______________________________
    2.______________________________

14. sight
    1.______________________________
    2.______________________________

15. game
    1.______________________________
    2.______________________________

16. fill
    1.______________________________
    2.______________________________

17. camp
    1.______________________________
    2.______________________________

18. green
    1.______________________________
    2.______________________________

19. train

1.____

2.____

20. due

1.____

2.____

21. nine

1.____

2.____

22. pick

1.____

2.____

23. miss

1.____

2.____

24. lean

1.____

2.____

25. map

1.____

2.____

26. age

1.____

2.____

2[illegible] take

1.____

2.____

APPENDIX D

Results of the Main Study for Individual Words

This Appendix actually presents a summary of normative data (as described in Chapter IV) and the comprehension test data (Chapter V) obtained on the 63 words used in the Main Study. It also presents the actual sentences used in the Sentence Evaluation and Headlines tests, arranged in a manner to facilitate detailed study of the results.

There is a page for each word, identified at the top. The first line below the identification of the word gives the word number as assigned in Appendix A, the sample (S) from which it was drawn, the Dale rating (D), the Thorndike Rank-Frequency Index (TH), the Grammatical Code (GC), the Semantic Code (SMCO), and the MGF vector (N, V, A). This is immediately followed by normative data drawn from Table 4.3 concerning the parts of speech used when children at various grades are asked to write sentences illustrating the use of the word. (Normative data from Level 1, Grade 6 are included here even though they were not given in Table 4.3 because of the small N's.) See Chapter IV for an explanation of these data.

The bottom two-thirds of each page is devoted to the data from the Main Study (Chapter V). Proportions of correct, incorrect, and missing responses to "high frequency" (H), "low frequency" (L), and anomalous (A) usages in the Sentence Evaluation test are given; z-tests of the differences in proportions of correct responses to H and L usages are shown. The z-tests for grade comparisons for H, L, and A proportions of correct responses are then given (drawn from Table 5.7). Similar data are then given for the Headlines test, but z-tests are shown not only for correct responses (R) but also for incorrect (W) and uninterpretable (?) responses. The z-tests for grade comparisons, however, refer only to proportions of correct responses.

APPENDIX D

```
                                   RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    1  AGE                                                          NORMATIVE DATA

                                                        -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                     MGF VECTOR        TOT.  %   BASE                                    P(VAL. P(GRAM.
                WD#  S O TH  GC SMCO  N  V  A            N  VALID  N   P(N)   P(V)   P(A)  P(OT)    P(2) 2ND R) CHANGE)

                36   3 1  18  4   1   9  1  0   GR.3: 102 0.245   25  1.000 *0.0   *0.0   *0.0     0.600 0.520 0.0

                                                GR.6:  17 0.588   10  0.900  0.100  0.0    0.0     0.900 0.900 0.556

    SENTENCE EVALUATION TEST                                              -------GRADE 3-------  -------GRADE 6-------

ITEM FM        SENTENCE                                                   1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 2   A  H-N  HE TOLD ME HIS <AGE>.                                        0.797 0.152 0.051 138  0.912 0.087 0.0    80

     C  L-V  THE TREES <AGE> EVERY YEAR.                                  0.391 0.594 0.014 138  0.800 0.188 0.012  80

                                                                       Z   6.86***                2.03*

     B  A-*  THE <AGE> PAPER WAS NEW.                                     0.167 0.826 0.007 138  0.025 0.975 0.0    80

                                                   GRADE COMPARISONS :  H    2.24*     L   5.84***   A    3.27**

    HEADLINES TEST                                       ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                                  1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
17   A  H-N  CHILD TELLS HIS <AGE>                       0.575 0.087 0.068 0.271 207  0.775 0.075 0.083 0.067 120

     B  L-V  STUDY SHOWS PEOPLE <AGE> SLOWER             0.087 0.227 0.140 0.546 207  0.483 0.158 0.167 0.192 120

                                                      Z  10.55 -3.92 -2.42                4.68 -2.01 -1.95
                                                          ***   ***    *                   ***    *

                                                                GRADE COMPARISONS:  H    3.65***   L    8.18***
                                     RESULTS FOR INDIVIDUAL WORDS

LEVEL 1     2  BROKE                                                         NORMATIVE DATA

                                                                -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                                 MGF VECTOR      TOT.  %    BASE                                 P(VAL. P(GRAM.
                           WD#   S D TH  GC SMCO  N  V  A          N  VALID   N    P(N)     P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                           167   2 2  28  6   1   0  9  1  GR.3:  98 0.735   72 *0.0     0.889 *0.111 *0.0     0.875 0.806 0.276

                                                           GR.6:  19 1.000   19 *0.0     0.737  0.263 *0.0     0.895 0.842 0.375

     SENTENCE EVALUATION TEST                                                       -------GRADE 3-------  -------GRADE 6-------

ITEM FM          SENTENCE                                                           1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
  9  A  H-V  OUR CAR <BROKE> DOWN DURING OUR TRIP.                                  0.855 0.109 0.036 138  0.987 0.012 0.0    80

     C  L-A  WE SPEND SO MUCH THAT WE ARE GETTING <BROKE>.                          0.761 0.217 0.022 138  0.825 0.162 0.012  80

                                                                             Z   1.99*                  3.53***

     B  A-*  HE BOUGHT A NEW <BROKE> WITH HIS BIRTHDAY MONEY.                       0.152 0.833 0.014 138  0.037 0.962 0.0    80

                                                                 GRADE COMPARISONS :  H   3.19**    L   1.11      A   2.84**

     HEADLINES TEST                                                     ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM          HEADLINE                                               1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
  6  B  H-V  CARS <BROKE> DOWN ON ROAD                                  0.198 0.473 0.232 0.097 207  0.425 0.283 0.267 0.025 120

     A  L-A  COUNTRY GOING <BROKE>                                      0.560 0.150 0.135 0.155 207  0.792 0.117 0.067 0.025 120

                                                                   Z  -7.60  7.11  2.54              -5.82  3.23  4.16
                                                                        ***   ***   *                  ***   **    ***

                                                                                 GRADE COMPARISONS:  H   4.40***   L   4.21***
```

```
                                    RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    3  CHANCE                                                          NORMATIVE DATA

                                                         -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                       MGF VECTOR        TOT.  %    BASE                                  P(VAL. P(GRAM.
                 WD#  S D TH  GC SMCO  N  V  A             N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                 205  3 1  18  7   1   8  1  1   GR.3: 102 0.216    22  0.955 *0.045 *0.0    *0.0     0.591 0.500 0.182

                                                 GR.6:  19 0.684    13  1.000 *0.0    *0.0    *0.0     0.923 0.923 0.250

                                                                          -------GRADE 3-------  -------GRADE 6-------
      SENTENCE EVALUATION TEST
                                                                          1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
ITEM FM        SENTENCE
  #
  7  B  H-N  WE DID NOT HAVE A <CHANCE> TO SEE THEM.                      0.761 0.203 0.036 138  0.912 0.087 0.0     80

     A  L-V  THE DRIVER SAID HE WOULD <CHANCE> THE RACE IN THE SNOW.      0.384 0.594 0.022 138  0.525 0.475 0.0     80

                                                                        Z  6.33***                5.45***

     C  A-*  THE <CHANCF> PERSON WENT TO CHURCH EVERY SUNDAY.             0.319 0.659 0.022 138  0.175 0.813 0.012  80

                                                     GRADE COMPARISONS :  H    2.79**     L   2.02*      A    2.41*

                                                              ----------GRADE 3----------  ----------GRADE 6----------
      HEADLINES TEST
                                                              1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM        HEADLINE
  #
  1  A  H-N  NO <CHANCE> TO SAVE LIVES IN FIRE                0.357 0.087 0.440 0.116 207  0.758 0.067 0.158 0.017 120

     B  L-V  PLAYERS <CHANCE> RACE IN SNOW                    0.106 0.324 0.396 0.174 207  0.325 0.317 0.275 0.083 120

                                                            Z  6.06 -5.96  0.90             6.74 -4.92 -2.19
                                                               ***   ***                    ***   ***    *

                                                                     GRADE COMPARISONS:  H   6.99***    L   4.89***
```

```
                                        RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    4  END                                                          NORMATIVE DATA

                                                        -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                       MGF VECTOR       TOT.  %   BASE                                   P(VAL. P(GRAM.
                   WD#  S D TH  GC SMCO  N  V  A          N  VALID   N   P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                   359  3 1  1A  4   1    8  2  0  GR.3:  98 0.796   78  0.949 *0.051 *0.0    *0.0     0.731 0.705 0.109

                                                   GR.6:  19 0.947   18  1.000 *0.0    *0.0    *0.0     0.778 0.778 0.214

    SENTENCE EVALUATION TEST                                                   -------GRADE 3-------  -------GRADE 6-------

ITEM FM         SENTENCE                                                       1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 14  A  H-N  THE CHILDREN FELL ASLEEP AT THE <END> OF THE DAY.                 0.812 0.145 0.043 138  0.975 0.025 0.0    80

     C  L-V  WE WAITED FOR THE LONG MOVIE TO <END>.                            0.855 0.123 0.022 138  0.938 0.037 0.025  80

                                                                            Z  -0.97                   1.16

     B  A-*  THE <END> SKY WAS DARK AT NIGHT.                                  0.217 0.746 0.036 138  0.075 0.925 0.0    80

                                                                 GRADE COMPARISONS :  H   3.48***   L   1.84      A   3.25**

    HEADLINES TEST                                                 ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM         HEADLINE                                           1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 10  B  H-N  <END> OF SCHOOL DRAWS NEAR                            0.469 0.121 0.169 0.242 207  0.717 0.075 0.175 0.033 120

     A  L-V  TEACHERS TO <END> GRADING OF STUDENTS                 0.343 0.169 0.116 0.372 207  0.833 0.042 0.083 0.042 120

                                                              Z     2.60 -1.40  1.55             -2.16  1.10  2.12
                                                                     **                            *            *

                                                                               GRADE COMPARISONS:  H   4.36***   L   8.56***
                                       RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    5  FILL                                                                NORMATIVE DATA

                                                              -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                        MGF VECTOR            TOT.  %   BASE                                  P(VAL. P(GRAM.
                . WD#  S D TH  GC SMCO  N   V  A               N  VALID  N    P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                  405  3 1  1A  4   1  -1  9  0  GR.3: 102 0.520   53 *0.038  0.962 *0.0    *0.0    0.679 0.585 0.032

                                                 GR.6:  17 0.882   15  0.333  0.667 *0.0    *0.0    0.733 0.600 0.667

    SENTENCE EVALUATION TEST                                            -------GRADE 3-------  -------GRADE 6-------

ITEM FM        SENTENCE                                                 1(R)  2(W)   N,I   N  1(R)  2(W)   N,I    N
 #
  3  B  H-V  THE MEN WILL <FILL> IN THE HOLE WITH DIRT.                 0.804 0.174 0.022 138  0.925 0.075 0.0     80

     C  L-N  THEY NEED <FILL> FOR THE HOLES IN THE ROAD.                0.355 0.630 0.014 138  0.175 0.813 0.012  80

                                                                     Z   7.56***                9.53***

     A  A-*  THEY WILL WORK VERY <FILL> TO FINISH.                      0.181 0.804 0.014 138  0.050 0.950 0.0     80

                                                         GRADE COMPARISONS :  H   2.40*     L  -2.83**    A   2.97**

    HEADLINES TEST                                            ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                                       1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 18  A  H-V  WORKERS <FILL> HOLE                              0.256 0.150 0.184 0.411 207  0.442 0.242 0.208 0.108 120

     B  L-N  <FILL> NEEDED FOR HOLE                           0.213 0.193 0.159 0.435 207  0.450 0.225 0.183 0.142 120

                                                          Z   1.04 -1.17  0.65             -0.13  0.31  0.49

                                                                      GRADE COMPARISONS:  H   3.46***   L   4.52***
```

```
                            RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    6  FREE                                                         NORMATIVE DATA

                                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                             MGF VECTOR           TOT.   %    BASE                                 P(VAL. P(GRAM.
                        WD#  S D TH  GC SMCO  N  V  A              N   VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                        437  2 1  1A  6   1   0  1  9  GR.3: 102 0.833   85 *0.0   *0.059  0.941 *0.0    0.918 0.871 0.081

                                                       GR.6:  17 1.000   17 *0.0    0.059  0.941 *0.0    0.882 0.706 0.250

    SENTENCE EVALUATION TEST                                                    -------GRADE 3-------  -------GRADE 6-------

ITEM FM       SENTENCE                                                          1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
  6  A  H-A  WE GOT <FREE> CANDY AT THE MOVIE.                                  0.761 0.203 0.036 138  0.925 0.075 0.0    80

     B  L-V  THE HUNTERS WILL <FREE> THE WILD ANIMAL.                           0.572 0.406 0.022 138  0.862 0.137 0.0    80

                                                                           Z   3.32***                 1.28

     C  A-*  THE <FREE> IS READY FOR DINNER.                                    0.181 0.797 0.022 138  0.037 0.938 0.025  80

                                                              GRADE COMPARISONS :  H   3.05**    L    4.42***   A   2.79**

    HEADLINES TEST                                                  ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM       HEADLINE                                              1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 21  A  H-A  <FREE> CANDY AT MOVIE                                  0.333 0.077 0.208 0.382 207  0.750 0.042 0.125 0.083 120

     B  L-V  HUNTERS <FREE> WILD ANIMAL                             0.425 0.130 0.106 0.338 207  0.658 0.058 0.200 0.083 120

                                                               Z  -1.92 -1.77  2.84              1.56 -0.59 -1.57
                                                                               **

                                                                            GRADE COMPARISONS:  H    7.27***   L    4.07***
```

```
                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 1     7  GAME                                                    NORMATIVE DATA

                                                      -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                     MGF VECTOR       TOT.  %    BASE                                P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A           N  VALID   N    P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                445  2 1  18  5   3   9  0  1  GR.3: 102 0.833    85  1.000 *0.0    *0.0   *0.0    0.753 0.706 0.0

                                               GR.6:  17 0.882    15  0.933 *0.0    0.067 *0.0    0.800 0.800 0.083

    SENTENCE EVALUATION TEST                                             -------GRADE 3-------   -------GRADE 6-------

ITEM FM         SENTENCE                                                 1(R)  2(W)   N,I   N    1(R)  2(W)   N,I   N
  #
  4  B  H-N  OUR TEAM WON THE <GAME>.                                    0.812 0.181 0.007 138   1.000 0.0   0.0    80

     A  L-A  THE MAN WAS <GAME> FOR THE RACE.                            0.145 0.804 0.051 138   0.250 0.750 0.0    80

                                                                       Z 11.09***                 9.90***

     C  A-*  WE CAN <GAME> THE PAINTING.                                 0.123 0.862 0.014 138   0.075 0.912 0.012  80

                                                     GRADE COMPARISONS :  H    4.14***   L    1.93       A    1.10

    HEADLINES TEST                                           ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM         HEADLINE                                     1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
 19  B  H-N  TEAM WINS <GAME>                                0.217 0.130 0.309 0.343 207  0.442 0.100 0.400 0.058 120

     A  L-A  RUNNER <GAME> FOR RACE                          0.048 0.309 0.145 0.498 207  0.275 0.367 0.175 0.183 120

                                                         Z    5.07 -4.39  3.99             2.69 -4.88  3.85
                                                              ***   ***   ***              **    ***   ***

                                                                     GRADE COMPARISONS:  H    4.27***   L    5.85***
                              RESULTS FOR INDIVIDUAL WORDS
LEVEL 1    8  GRAVE                                              NORMATIVE DATA

                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                             MGF VECTOR          TOT.  %    BASE                                  P(VAL. P(GRAM.
          WD#  S D TH  GC SMCO  N  V  A           N  VALID   N    P(N)   P(V)    P(A)  P(OT)  P(2) 2ND R) CHANGE)

          468  2 1  2A  5   4   8  0  2  GR.3:  98 0.204    20  0.950 *0.0   *0.050 *0.0    0.400 0.250 0.200

                                         GR.6:  19 0.789    15  0.733 *0.0    0.267 *0.0    0.733 0.666 0.400

    SENTENCE EVALUATION TEST                                 -------GRADE 3-------  -------GRADE 6-------

ITEM FM        SENTENCE                                      1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 13  C  H-N  THEY DUG A <GRAVE> FOR THE BODY.                0.783 0.188 0.029 138  0.950 0.037 0.012  80

     A  L-A  IT WAS A VERY <GRAVE> PROBLEM.                  0.210 0.746 0.043 138  0.400 0.600 0.0    80

                                                           Z  9.51***               7.43***

     B  A-*  THE FISH WILL <GRAVE> IN THEIR NEW POND.        0.312 0.638 0.051 138  0.225 0.775 0.0    80

                                             GRADE COMPARISONS :  H   3.28**   L   3.01**    A   2.11*

    HEADLINES TEST                                  ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                             1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  5  A  H-N  BODY FOUND IN <GRAVE>                  0.454 0.164 0.198 0.184 207  0.792 0.042 0.142 0.025 120

     B  L-A  TEACHERS FACE <GRAVE> PROBLEMS         0.193 0.179 0.280 0.348 207  0.583 0.125 0.183 0.108 120

                                                 Z  5.67 -0.39 -1.96             3.48 -2.34 -0.87
                                                    ***          *               ***    *

                                                         GRADE COMPARISONS:  H   5.96***   L   7.20***
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                           RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    9  LINE                                                              NORMATIVE DATA

                                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                             MGF VECTOR           TOT.  %    BASE                                  P(VAL. P(GRAM.
                    WD#  S D TH  GC SMCO  N   V   A                 N  VALID   N    P(N)   P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                    623  2 1  1A  4   3    9   1   0  GR.3: 102 0.657   67  0.940 *0.060 *0.0    *0.0     0.716 0.657 0.023

                                                      GR.6:  19 0.737   14  0.857  0.143 *0.0    *0.0     1.000 1.000 0.214

    SENTENCE EVALUATION TEST                                                  -------GRADE 3-------  -------GRADE 6-------

ITEM FM       SENTENCE                                                        1(R)  2(W)   N,I   N    1(R)  2(W)   N,I   N
 #
  8  C  H-N  WE HAD TO GET IN <LINE> BEFORE WE WENT OUT.                      0.884 0.094 0.022 138  0.975 0.012 0.012  80

     B  L-V  WE HAD TO <LINE> UP BEFORE LUNCH.                                0.804 0.181 0.014 138  0.900 0.100 0.0    80

                                                                           Z   1.83                    1.96

     A  A-*  WE HAD A VERY <LINE> WORK TO FINISH.                             0.167 0.797 0.036 138  0.063 0.925 0.012  80

                                                       GRADE COMPARISONS :  H   2.35*     L   1.85      A   2.51*

    HEADLINES TEST                                          ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM       HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 11  A  H-N  LONG <LINE> EXPECTED FOR NEW MOVIE             0.198 0.193 0.169 0.440 207  0.475 0.292 0.142 0.092 120

     B  L-V  STUDENTS <LINE> HALLS FOR NOON MEAL            0.068 0.300 0.242 0.391 207  0.333 0.400 0.200 0.067 120

                                                         Z   3.91 -2.51 -1.83             2.24 -1.76 -1.20
                                                             ***    *                      *

                                                                  GRADE COMPARISONS:  H   5.27***   L   6.24***
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                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   10  LIVE                                                       NORMATIVE DATA

                                                      -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                    MGF VECTOR        TOT.  %    BASE                                P(VAL. P(GRAM.
                 WD#  S D TH  GC SMCO  N  V  A         N  VALID   N    P(N)    P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

                 615  1 1  1A  6   1   0  9  1  GR.3: 102 0.863   88 *0.0    0.977 *0.023 *0.0    0.773 0.739 0.015

                                                GR.6:  19 0.842   16 *0.0    0.938  0.063 *0.0    0.938 0.875 0.071

                                                                  -------GRADE 3-------  -------GRADE 6-------
   SENTENCE EVALUATION TEST
                                                                  1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
ITEM FM        SENTENCE
 #                                                                0.826 0.123 0.051 138  0.962 0.037 0.0    80
 11  B  H-V  A LOT OF PEOPLE <LIVE> IN BIG CITIES.
                                                                  0.746 0.232 0.022 138  0.787 0.200 0.012  80
     C  L-A  THE ZOO HAS LOTS OF <LIVE> ANIMALS.
                                                              Z   1.62                   3.35***

     A  A-*  THE <LIVE> IS ALMOST READY TO GO.                    0.159 0.804 0.036 138  0.087 0.912 0.0    80

                                              GRADE COMPARISONS :  H   2.95**   L   0.69      A   2.12*

   HEADLINES TEST                                  ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                            1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  3  A  H-V  MORE PEOPLE <LIVE> IN CITIES          0.498 0.121 0.242 0.140 207  0.750 0.067 0.142 0.042 120

     B  L-A  <LIVE> ANIMALS AT ZOO                 0.251 0.155 0.493 0.101 207  0.425 0.067 0.483 0.025 120

                                             Z     5.18 -1.00 -5.30             5.11  0.0  -5.71
                                                   ***         ***              ***         ***

                                                          GRADE COMPARISONS:  H   4.47***   L   3.26**
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                                  RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   11  MILL                                                      NORMATIVE DATA

                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                  MGF VECTOR        TOT.  %   BASE                                 P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A         N  VALID  N    P(N)   P(V)   P(A)  P(OT)   P(2) 2ND R) CHANGE)

                689  1 1  18  4   1   9  1  0  GR.3:  98 0.367  36  1.000 *0.0   *0.0   *0.0    0.500 0.444 0.125

                                               GR.6:  19 0.947  18  0.889  0.111 *0.0   *0.0    0.667 0.667 0.250

     SENTENCE EVALUATION TEST                                         -------GRADE 3-------  -------GRADE 6-------

ITEM FM        SENTENCE                                               1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 17  C  H-N  THE CHILDREN WALKED TO THE <MILL> NEAR THE RIVER.       0.710 0.261 0.029 138  0.925 0.063 0.012  80

     B  L-V  BEFORE CLASS, CHILDREN OFTEN <MILL> IN THE HALLS.       0.210 0.761 0.029 138  0.300 0.700 0.0    80

                                                                  Z   8.33***                8.11***

     A  A-*  I HAVE TO EAT VERY <MILL> BEFORE MOTHER COMES BACK.     0.123 0.826 0.051 138  0.087 0.912 0.0    80

                                                         GRADE COMPARISONS :  H   3.75***  L   1.49      A   1.76

     HEADLINES TEST                                          ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  7  B  H-N  FLOUR BEING MADE IN OLD <MILL>                  0.111 0.343 0.242 0.304 207  0.375 0.250 0.333 0.042 120

     A  L-V  STUDENTS WARNED NOT TO <MILL> ON STREETS        0.063 0.386 0.072 0.478 207  0.308 0.542 0.075 0.075 120

                                                         Z    1.74 -0.92  4.73              1.09 -4.62  4.96
                                                                           ***                     ***   ***

                                                                    GRADE COMPARISONS:  H   5.67***  L   5.95***
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                                        RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   12  NAME                                                              NORMATIVE DATA

                                                       -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                         MGF VECTOR    TOT.  %    BASE                                  P(VAL. P(GRAM.
                       WD#  S D TH  GC SMCO  N  V  A         N  VALID   N    P(N)    P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                       723  3 1  1A  4   1   8  2  0  GR.3: 102 0.559   57   0.965 *0.035 *0.0    *0.0    0.561 0.526 0.167

                                                      GR.6:  19 0.684   13   0.923  0.077 *0.0    *0.0    1.000 1.000 0.692

    SENTENCE EVALUATION TEST                                                     -------GRADE 3-------  -------GRADE 6-------

ITEM FM          SENTENCE                                                        1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
 19  B  H-N  IN FIRST GRADE, YOU LEARN TO PRINT YOUR <NAME>.                     0.906 0.072 0.022 138  1.000 0.0   0.0    80

     A  L-V  SECOND GRADERS CAN <NAME> THE DAYS OF THE WEEK.                     0.848 0.094 0.058 138  0.938 0.063 0.0    80

                                                                              Z  1.47                   2.27*

     C  A-*  WE RODE THE <NAME> HORSE TOO FAST.                                  0.174 0.797 0.029 138  0.050 0.938 0.012  80

                                                            GRADE COMPARISONS :  H   2.83**     L   1.97*     A   2.79**

    HEADLINES TEST                                             ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM          HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
  9  B  H-N  NEW <NAME> GIVEN OLD STREET                       0.159 0.198 0.309 0.333 207  0.367 0.167 0.358 0.108 120

     A  L-V  TEACHERS <NAME> BEST STUDENTS                     0.106 0.449 0.135 0.309 207  0.483 0.333 0.150 0.033 120

                                                            Z  1.59 -5.46  4.26             -1.83 -2.98  3.71
                                                                     ***   ***                     **    ***

                                                                     GRADE COMPARISONS:  H   4.26***   L   7.64***
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                                    RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   13  PAGE                                                         NORMATIVE DATA

                                                          -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                    MGF VECTOR             TOT.  %   BASE                                P(VAL. P(GRAM.
                 WD#  S O TH  GC SMCO  N  V  A               N  VALID  N    P(N)   P(V)   P(A)  P(OT)   P(2) 2ND R) CHANGE)

                 783  1 1  1B  4   2   9 -1  0  GR.3:  98 0.439   43  1.000 *0.0   *0.0   *0.0    0.744 0.674 0.103

                                                GR.6:  19 0.632   12  0.833  0.167 *0.0   *0.0    0.917 0.834 0.600

    SENTENCE EVALUATION TEST                                           -------GRADE 3-------  -------GRADE 6-------

ITEM FM         SENTENCE                                               1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
 18  A  H-N  WE WILL READ EACH <PAGE> IN THE BOOK CAREFULLY           0.862 0.087 0.051 138  0.962 0.037 0.0    80

     B  L-V  WHEN YOU ARE LOST, SOMEONE WILL <PAGE> YOUR MOTHER.      0.297 0.667 0.036 138  0.512 0.475 0.012  80

                                                                 Z   9.51***                  6.47***

     C  A-*  FEELING ILL, THE BOY WAS VERY <PAGE>.                    0.174 0.797 0.029 138  0.063 0.925 0.012  80

                                                   GRADE COMPARISONS :  H   2.37*     L   3.16**    A   2.51*

    HEADLINES TEST                                      ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
  8  A  H-N  FRONT <PAGE> OF NEWSPAPER NEVER DULL        0.319 0.024 0.353 0.304 207  0.708 0.008 0.242 0.042 120

     B  L-V  PRINCIPAL WILL <PAGE> TEACHERS OVER LOUDSPEAKER   0.111 0.444 0.097 0.348 207  0.317 0.500 0.108 0.075 120

                                                    Z   5.14-10.09  6.24              6.07 -8.75  2.72
                                                         ***   ***   ***               ***   ***   **

                                                              GRADE COMPARISONS:  H   6.81***   L   4.60***
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                                   RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   14  PRIVATE                                                     NORMATIVE DATA

                                                         -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                 MGF VECTOR              TOT.  %   BASE                                   P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A             N  VALID   N    P(N)    P(V)    P(A)  P(OT)  P(2) 2ND R) CHANGE)

                876  2 3  2A  5   4   1  0  9  GR.3: 102 0.284   29 *0.069 *0.0    0.931 *0.0    0.690 0.586 0.176

                                               GR.6:  19 0.895   17  0.118 *0.0    0.882 *0.0    0.824 0.706 0.083

   SENTENCE EVALUATION TEST                                              -------GRADE 3-------  -------GRADE 6-------

ITEM FM         SENTENCE                                                 1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 10  B  H-A  THE NEW <PRIVATE> SCHOOL WILL BE OPEN NEXT YEAR.            0.775 0.203 0.022 138  0.912 0.087 0.0    80

     C  L-N  A <PRIVATE> WON A MEDAL DURING THE WAR.                     0.522 0.457 0.022 138  0.775 0.200 0.025  80

                                                                   Z   4.41***                 2.40*

     A  A-*  DOGS ALWAYS <PRIVATE> THE MAILMAN.                          0.246 0.710 0.043 138  0.137 0.862 0.0    80

                                                       GRADE COMPARISONS :  H   2.57*     L   3.70***   A   2.56*

   HEADLINES TEST                                            ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM         HEADLINE                                     1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  2  B  H-A  <PRIVATE> SCHOOLS OPEN                          0.164 0.237 0.406 0.193 207  0.342 0.283 0.300 0.075 120

     A  L-N  <PRIVATE> GETS MEDAL                            0.145 0.237 0.237 0.382 207  0.625 0.108 0.208 0.058 120

                                                       Z   0.54  0.0   3.68               -4.39  3.42  1.63
                                                                       ***                  ***   ***

                                                                       GRADE COMPARISONS:  H   3.68***   L   8.96***
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                                    RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   15  SEASON                                                        NORMATIVE DATA

                                                              -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                        MGF VECTOR            TOT.  %   BASE                                   P(VAL. P(GRAM.
                   WD#  S D TH  GC SMCO  N  V  A               N  VALID   N   P(N)   P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                   975  1 1  18  4   3   9  1  0   GR.3:  98 0.367   36  1.000 *0.0   *0.0   *0.0    0.639 0.556 0.050

                                                   GR.6:  19 0.737   14  1.000 *0.0   *0.0   *0.0    0.786 0.786 0.455

     SENTENCE EVALUATION TEST                                                -------GRADE 3-------  -------GRADE 6-------

ITEM FM          SENTENCE                                                    1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
 12  A  H-N  THE SUMMER <SEASON> WILL BE HERE SOON.                          0.841 0.116 0.043 138  0.938 0.063 0.0    80

     B  L-V  SALT IS USED TO <SEASON> MANY FOODS.                            0.623 0.341 0.036 138  0.800 0.188 0.012  80

                                                                       Z   4.08***                 2.58*

     C  A-*  THE <SEASON> DRESS WAS VERY PRETTY.                             0.464 0.507 0.029 138  0.350 0.637 0.012  80

                                                     GRADE COMPARISONS :  H    2.09*     L   2.72**     A   1.87

     HEADLINES TEST                                      ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM          HEADLINE                                1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
  4  B  H-N  SUMMER <SEASON> APPROACHES                  0.145 0.082 0.570 0.203 207  0.392 0.058 0.475 0.075 120

     A  L-V  SALT USED TO <SEASON> FOOD                  0.415 0.232 0.135 0.217 207  0.825 0.042 0.100 0.033 120

                                                      Z  -6.13 -4.19  9.26             -6.88  0.59  6.42
                                                          ***   ***   ***               ***          ***

                                                                 GRADE COMPARISONS:  H   5.07***   L   7.20***
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                         RESULTS FOR INDIVIDUAL WORDS
                                                                NORMATIVE DATA
LEVEL 1   16  SIGHT
                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                     MGF VECTOR       TOT.  %    BASE                                P(VAL. P(GRAM.
               WD#  S D TH  GC SMCO  N  V  A            N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

              1015  1 1  1A  4   1   9  1  0  GR.3: 102 0.490   50  0.920 *0.080 *0.0    *0.0    0.780 0.640 0.0

                                              GR.6:  17 0.882   15  1.000 *0.0   *0.0    *0.0    0.867 0.867 0.077

   SENTENCE EVALUATION TEST                                     -------GRADE 3-------  -------GRADE 6-------

ITEM FM        SENTENCE                                          1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
20  C  H-N  THE VALLEY WAS A PRETTY <SIGHT> FROM THE HILL.      0.812 0.167 0.022 138  0.912 0.063 0.025  80

    A  L-V  IF YOU ARE LUCKY, YOU WILL <SIGHT> A NEW STAR.      0.406 0.543 0.051 138  0.575 0.425 0.0    80

                                                              Z   6.91***              4.89***

    B  A-*  WHENEVER I RUN, I GET A <SIGHT> HEAD.               0.174 0.804 0.022 138  0.063 0.925 0.012  80

                                             GRADE COMPARISONS :  H   2.00*      L   2.41*     A   2.40*

   HEADLINES TEST                                ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM       HEADLINE                           1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
15  A  H-N  <SIGHT> GIVEN TO BLIND BOY           0.304 0.116 0.159 0.420 207  0.750 0.067 0.100 0.083 120

    B  L-V  PEOPLE <SIGHT> NEW COMET IN SKY      0.507 0.039 0.121 0.333 207  0.783 0.017 0.142 0.058 120

                                              Z  -4.20  2.94  1.13            -0.61  1.94 -0.99
                                                  ***    **

                                                       GRADE COMPARISONS:  H   7.78***   L   4.93***
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                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 1    17  SKIRT                                          NORMATIVE DATA

                                                   -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                 MGF VECTOR         TOT.  %    BASE                                   P(VAL. P(GRAM.
              WD#   S D TH  GC SMCO  N  V  A          N  VALID   N   P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)
                                                                                                           .
             1023   1 1  2A  4   4   7  3  0  GR.3:  98 0.510   50  0.940 *0.060 *0.0    *0.0     0.640 0.620 0.032

                                              GR.6:  19 0.895   17  0.941  0.059 *0.0    *0.0     0.588 0.412 0.429

                                                                        -------GRADE 3-------  -------GRADE 6-------
    SENTENCE EVALUATION TEST
                                                                        1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM         SENTENCE
 #
15  C  H-N  I LIKE MY MOTHER'S RED <SKIRT> THE BEST.                    0.819 0.152 0.029 138  0.925 0.050 0.025  80

    A  L-V  OUR TEACHER WILL <SKIRT> THE PROBLEM FOR NOW.               0.159 0.790 0.051 138  0.137 0.862 0.0    80

                                                                      Z 10.96***               9.98***

    B  A-*  WHEN WINTER COMES, WE CAN PLAY ON THE <SKIRT> SNOW.         0.297 0.681 0.022 138  0.063 0.938 0.0    80

                                                  GRADE COMPARISONS :  H   2.16*     L  -0.44      A   4.37***

                                                   ----------GRADE 3----------  ----------GRADE 6----------
    HEADLINES TEST
                                                   1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM         HEADLINE
 #
12  A  H-N  WOMAN GETS <SKIRT> CAUGHT IN BUS DOOR  0.309 0.275 0.145 0.271 207  0.525 0.300 0.125 0.050 120

    B  L-V  LEADERS <SKIRT> IMPORTANT PROBLEMS     0.005 0.329 0.155 0.512 207  0.058 0.617 0.125 0.200 120

                                                Z   8.51 -1.18 -0.28             7.95 -4.92  0.0
                                                     ***                          ***   ***

                                                            GRADE COMPARISONS:  H   3.86***   L   3.02**
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                        RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   18  STRANGER                                                      NORMATIVE DATA

                                                   -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                       MGF VECTOR    TOT.  %   BASE                                 P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO   N  V  A         N  VALID  N    P(N)   P(V)   P(A)  P(OT)   P(2) 2ND R) CHANGE)

                1084  1 1  28  5   1   9  0 -1  GR.3: 102 0.480  49  0.898 *0.0   *0.102 *0.0    0.837 0.755 0.216

                                            GR.6:  17 0.882  15  0.933 *0.0    0.067 *0.0    0.867 0.800 0.750

    SENTENCE EVALUATION TEST                                       -------GRADE 3-------  -------GRADE 6-------

ITEM FM         SENTENCE                                           1(R)  2(W)   N,I   N  1(R)  2(W)   N,I    N
 #
  5  C  H-N  HE WAS A <STRANGER> IN OUR TOWN.                      0.797 0.188 0.014 138  0.950 0.037 0.012  80

     B  L-A  I NEVER HEARD A <STRANGER> STORY                      0.362 0.623 0.014 138  0.438 0.563 0.0    80

                                                                Z  7.32***                7.03***

     A  A-*  CAN YOU <STRANGER> IT?                                0.181 0.783 0.036 138  0.125 0.875 0.0    80

                                              GRADE COMPARISONS :  H   3.07**    L   1.10      A   1.70

    HEADLINES TEST                                       ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM         HEADLINE                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 20  B  H-N  <STRANGER> FOUND DEAD                       0.121 0.261 0.217 0.401 207  0.433 0.192 0.292 0.085 120

     A  L-A  MAN TELLS OF <STRANGER> THINGS TO HAPPEN    0.058 0.237 0.159 0.546 207  0.417 0.358 0.108 0.117 120

                                                      Z   2.24  0.57  1.51             0.26 -2.89  3.55
                                                           *                                  **   ***

                                                         GRADE COMPARISONS:  H   6.42***   L   7.98***
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                                               RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   19  TAKE                                                                             NORMATIVE DATA

                                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                            MGF VECTOR            TOT.  %   BASE                                    P(VAL. P(GRAM.
                    WD#  S D TH  GC SMCO  N   V  A                N  VALID   N    P(N)     P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                   1116  1 1  1A  4   1  -1   9  0  GR.3: 102 0.382   39 *0.026  0.974 *0.0    *0.0     0.667 0.642 0.0

                                                    GR.6:  17 0.706   12 *0.0    1.000 *0.0    *0.0     0.583 0.583 0.0


    SENTENCE EVALUATION TEST                                                   -------GRADE 3-------  -------GRADE 6-------

ITEM FM         SENTENCE                                                       1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
  1  B  H-V  OUR CLASS WILL <TAKE> A TRIP TO THE ZOO.                          0.826 0.167 0.007 138  0.925 0.075 0.0    80

     A  L-N  THE HUNTERS RETURNED WITH A BIG <TAKE>.                           0.232 0.739 0.029 138  0.200 0.800 0.0    80

                                                                        Z    9.89***                  9.24***

     C  A-*  WE WENT FOR A TRIP ON A <TAKE> BUS.                               0.167 0.826 0.007 138  0.025 0.962 0.012  80

                                                              GRADE COMPARISONS :  H   2.04*      L  -0.55       A   2.95**

    HEADLINES TEST                                            ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM         HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 16  B  H-V  CHILDREN <TAKE> TRIP TO CITY                     0.483 0.097 0.179 0.242 207  0.642 0.033 0.283 0.042 120

     A  L-N  HUNTERS RETURN WITH BIG <TAKE>                   0.329 0.179 0.101 0.391 207  0.683 0.150 0.058 0.108 120

                                                           Z    3.20 -2.42  2.27             -0.68 -3.13  4.63
                                                                 **    *     *                       **    ***

                                                                          GRADE COMPARISONS:  H   2.77**    L    6.21***
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                                     RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   20  TRAIN                                                              NORMATIVE DATA

                                                                   -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                              MGF VECTOR           TOT.  %   BASE                                  P(VAL. P(GRAM.
                        WD#  S D TH  GC SMCO  N  V  A               N  VALID   N    P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                       1153  2 1  1A  4   4   7  3  0   GR.3: 102 0.618   63  0.921 *0.079 *0.0   *0.0    0.714 0.666 0.286

                                                        GR.6:  17 0.765   13  0.846  0.154 *0.0   *0.0    0.923 0.923 0.667

                                                                              -------GRADE 3-------   -------GRADE 6-------
    SENTENCE EVALUATION TEST
                                                                              1(R)  2(W)   N,I   N    1(R)  2(W)   N,I   N
ITEM FM         SENTENCE
 #
 16  C  H-N  MARY TOOK THE <TRAIN> TO NEW YORK.                              0.826 0.152 0.022 138   0.887 0.100 0.012  80

     B  L-V  I WILL TRY TO <TRAIN> MY BIRD TO TALK.                          0.616 0.341 0.043 138   0.800 0.188 0.012  80

                                                                           Z   3.89***                1.52

     A  A-*  WE USED A <TRAIN> PIECE OF STRING TO TIE THE BOX.               0.261 0.696 0.043 138   0.162 0.837 0.0    80

                                                           GRADE COMPARISONS :  H   1.22      L   2.82**    A   2.32*

                                                              ----------GRADE 3----------  ----------GRADE 6----------
    HEADLINES TEST
                                                              1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM         HEADLINE
 #
 14  B  H-N  <TRAIN> CRACKS UP OUTSIDE OF CITY                0.179 0.159 0.217 0.444 207  0.450 0.133 0.308 0.108 120

     A  L-V  BOY ABLE TO <TRAIN> OLD DOG NEW TRICKS           0.517 0.039 0.101 0.343 207  0.792 0.050 0.133 0.025 120

                                                            Z -7.22  4.11  3.22            -5.45  2.24  3.27
                                                                ***   ***    **              ***    *     **

                                                                          GRADE COMPARISONS:  H   5.28***   L   4.93***
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                                         RESULTS FOR INDIVIDUAL WORDS

LEVEL 1   21  WISH                                                                   NORMATIVE DATA

                                                                -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                          MGF VECTOR            TOT.  %   BASE                                     P(VAL. P(GRAM.
                  WD#   S D TH  GC SMCO  N  V  A                 N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                  1235  3 1  1A  4   1   2  8  0  GR.3:  98 0.337   33 *0.061  0.939 *0.0    *0.0    0.697 0.667 0.182

                                                  GR.6:  19 0.579   11  0.182  0.818 *0.0    *0.0    0.727 0.727 0.750

     SENTENCE EVALUATION TEST                                                  -------GRADE 3-------  -------GRADE 6-------

ITEM FM        SENTENCE                                                        1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 21  A  H-V  THEY WERE TOLD TO ONLY <WISH> FOR GOOD THINGS.                    0.812 0.159 0.029 138  0.887 0.100 0.012  80

     C  L-N  IF I COULD HAVE ONLY ONE <WISH>, I WOULD BE HAPPY.                0.855 0.123 0.022 138  0.962 0.012 0.025  80

                                                                            Z  -0.97                  -1.80

     B  A-*  BOB, <WISH> ONE DO YOU WANT. (SIC)                                0.268 0.688 0.043 138  0.063 0.938 0.0     80

                                                         GRADE COMPARISONS :  H   1.47       L   2.49*      A    4.28***

     HEADLINES TEST                                          ----------GRADE 3----------  ----------GRADE 6----------

ITEM FM        HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 13  A  H-V  STUDENTS <WISH> SCHOOL YEAR OVER                0.440 0.135 0.121 0.304 207  0.725 0.117 0.133 0.025 120

     B  L-N  <WISH> COMES TRUE FOR HAPPY FAMILY              0.179 0.256 0.198 0.367 207  0.517 0.192 0.233 0.058 120

                                                         Z   5.74 -3.10 -2.15              3.33 -1.61 -2.00
                                                              ***   **    *                 ***         *

                                                                    GRADE COMPARISONS:  H   4.99***   L   6.41***
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                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 2    1  APPEAL                                                  NORMATIVE DATA

                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                  MGF VECTOR        TOT.  %   BASE                                   P(VAL. P(GRAM.
                WD#  S D TH  GC SMCD  N  V  A         N  VALID   N    P(N)    P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

                 67  2 3  3A  4   1    5  5  0  GR.6: 138 0.507   70 *0.114  0.886 *0.0   *0.0    0.571 0.443 0.323

                                                GR.9:  97 0.577   56  0.357  0.643 *0.0   *0.0    0.821 0.768 0.558

    SENTENCE EVALUATION TEST                                             -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                                 1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
  5  C  H-N  THE MAN HAD GREAT <APPEAL> FOR THE CHILDREN.                0.688 0.304 0.009 112  0.733 0.256 0.011  90

     A  L-N  WE MUST MAKE AN <APPEAL> FOR FAIRNESS.                      0.723 0.277 0.0   112  0.867 0.133 0.0    90

                                                                      Z  -0.59                  -2.24*

     B  A-*  THE WOMAN WORE A VERY <APPEAL> HAT.                         0.295 0.705 0.0   112  0.167 0.822 0.011  90

                                                 GRADE COMPARISONS :  H    0.71      L    2.48*      A    1.93

    HEADLINES TEST                                       ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
 18  A  H-V  CRIMINAL TO <APPEAL> COURT SENTENCE         0.042 0.595 0.161 0.202 168  0.296 0.496 0.096 0.111 135

     B  L-N  NEW AUTO HAS <APPEAL> FOR MANY              0.440 0.238 0.190 0.131 168  0.674 0.081 0.141 0.104 135

                                                      Z  -8.55  6.64 -0.72            -6.21  7.52 -1.13
                                                          ***   ***                    ***   ***

                                                             GRADE COMPARISONS:  H    6.09***    L    4.06***
                              RESULTS FOR INDIVIDUAL WORDS

. LEVEL 2     2  BOTHER                                                            NORMATIVE DATA

                                                            -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                                 MGF VECTOR        TOT.  %    BASE                                 P(VAL. P(GRAM.
                         WD#   S D TH   GC SMCO   N   V   A          N  VALID    N     P(N)     P(V)     P(A)    P(OT)    P(2) 2ND R) CHANGE)

                         162   2 1   4A   4    1    1   9   0  GR.6: 126 0.754    95 *0.095   0.905 *0.0    *0.0      0.811 0.769 0.315

                                                              GR.9: 102 0.676    69 *0.116   0.884 *0.0    *0.0      0.768 0.768 0.528

     SENTENCE EVALUATION TEST                                                    -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                                         1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 13  A  H-V  THE NOISY JETS ALWAYS <BOTHER> THAT FARMER'S CATTLE.                0.875 0.125 0.0   112  0.889 0.111 0.0    90

     B  L-N  THE FARMERS DISCUSSED THE <BOTHER> FROM THE JETS.                   0.473 0.527 0.0   112  0.422 0.578 0.0    90

                                                                             Z   6.41***                  6.59***

     C  A-*  THE <BOTHER> JETS ANGERED THE FARMERS.                              0.089 0.902 0.009 112  0.044 0.944 0.011  90

                                                        GRADE COMPARISONS :  H    0.30      L  -0.72      A   1.12

     HEADLINES TEST                                          ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                     1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  5  A  H-V  NOISY PLANES <BOTHER> FARMERS                   0.494 0.196 0.232 0.077 168  0.726 0.148 0.089 0.037 135

     B  L-N  FARMERS DISCUSS <BOTHER> FROM NOISY JETS        0.393 0.274 0.268 0.065 168  0.570 0.207 0.148 0.074 135

                                                         Z   1.87 -1.67 -0.76             2.68 -1.27 -1.51
                                                                                          **

                                                                      GRADE COMPARISONS:  H   4.09***   L   3.08**
                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 2    3  BUBBLE                                                           NORMATIVE DATA

                                                              -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                            MGF VECTOR        TOT.  %    BASE                                  P(VAL. P(GRAM.
                       WD#  S D TH  GC SMCO  N  V  A            N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                       175  1 1  3A  4   1   7  3  0  GR.6: 141 0.936  132  0.970 *0.030 *0.0    *0.0     0.894 0.833 0.118

                                                      GR.9: 106 0.840   89  0.921 *0.067 *0.011 *0.0     0.798 0.787 0.314

   SENTENCE EVALUATION TEST                                                    -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                        1(R)  2(W)    N,I   N   1(R)  2(W)    N,I   N
 #
 16  C  H-N  THE ARTIST BLEW A <BUBBLE> OUT OF GLASS.                         0.857 0.143 0.0   112  0.911 0.078 0.011  90

     A  L-V  THE BOILING OIL TANKS ARE ABOUT TO <BUBBLE> OVER.                0.741 0.259 0.0   112  0.856 0.133 0.011  90

                                                                         Z   2.17*                   1.16

     B  A-*  HE HAD A VERY <BUBBLE> LOOK ABOUT HIM.                           0.170 0.813 0.018 112  0.267 0.722 0.011  90

                                                       GRADE COMPARISONS :  H   1.18      L   1.99*     A  -1.52

   HEADLINES TEST                                          ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                    1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 21  B  H-N  ARTIST BLOWS GLASS <BUBBLE> FOR VISITOR       0.351 0.179 0.363 0.107 168  0.311 0.111 0.422 0.156 135

     A  L-V  BOILING OIL TANKS <BUBBLE> OVER               0.696 0.006 0.167 0.131 168  0.830 0.030 0.074 0.067 135

                                                       Z  -6.34  5.47  4.08             -8.61  2.62  6.62
                                                           ***   ***   ***               ***    **   ***

                                                                    GRADE COMPARISONS:  H  -0.74      L   2.68**
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                                   RESULTS FOR INDIVIDUAL WORDS
                                                                          NORMATIVE DATA
LEVEL 2    4  BUY
                                                               -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                           MGF VECTOR          TOT.   %   BASE                                 P(VAL. P(GRAM.
                 WD#  S D TH  GC SMCO  N  V  A                  N  VALID   N    P(N)     P(V)    P(A)   P(OT)  P(2) 2ND R) CHANGE)

                 182  2 1  3A  4   1   1  9  0  GR.6: 138 0.899  124 *0.040  0.960 *0.0   *0.0   0.871 0.670 0.169

                                                GR.9:  97 0.804   78 *0.064  0.936 *0.0   *0.0   0.679 0.576 0.356

                                                                       -------GRADE 6-------  -------GRADE 9-------
      SENTENCE EVALUATION TEST
                                                                       1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
ITEM FM        SENTENCE
 #                                                                     0.938 0.063 0.0   112  0.967 0.033 0.0    90
 20  A  H-V  MY MOTHER WILL <BUY> THAT NEW GAME FOR ME.
                                                                       0.768 0.214 0.018 112  0.878 0.122 0.0    90
     B  L-N  THERE IS A BIG <BUY> AT THE STORE TODAY.
                                                                  Z    3.58***                2.23*

                                                                       0.107 0.893 0.0   112  0.056 0.933 0.011  90
     C  A-*  THE TEACHER GAVE US A <BUY> BOOK TO USE.
                                                      GRADE COMPARISONS :  H   0.95      L   2.01*     A   1.00

                                                         ----------GRADE 6----------  ----------GRADE 9----------
      HEADLINES TEST
                                                         1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM        HEADLINE
 #                                                       0.244 0.464 0.244 0.048 168  0.526 0.326 0.096 0.052 135
 12  A  H-V  MOTHERS <BUY> NEW PRODUCT
                                                         0.768 0.042 0.137 0.054 168  0.830 0.022 0.104 0.044 135
     B  L-N  BIG <BUY> AT LOCAL STORE
                                                      Z  -9.60  8.91  2.50            -5.34  6.58 -0.20
                                                          ***   ***    *               ***    ***

                                                                     GRADE COMPARISONS:  H   5.05***   L   1.32
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                               RESULTS FOR INDIVIDUAL WORDS

LEVEL 2    5  CHANNEL                                                  NORMATIVE DATA

                                                          -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                         MGF VECTOR        TOT.  %    BASE                                  P(VAL. P(GRAM.
              WD#   S D TH  GC SMCO   N  V  A               N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

              207   1 3  3B  4   1    9  1  0   GR.6: 141 0.766   108  1.000 *0.0    *0.0    *0.0     0.833 0.824 0.011

                                                GR.9: 106 0.670    71  0.972 *0.028 *0.0    *0.0     0.845 0.817 0.138

    SENTENCE EVALUATION TEST                                              -------GRADE 6-------   -------GRADE 9-------

ITEM FM         SENTENCE                                                  1(R)  2(W)   N,I   N    1(R)  2(W)   N,I   N
 #
 2  B  H-N  THE SHIP ENTERED THE <CHANNEL> WITH ITS GUNS FIRING.          0.777 0.223 0.0   112   0.911 0.089 0.0    90

    A  L-V  THE BOY DECIDED TO <CHANNEL> HIS WORK TOWARD BETTER GRADES.   0.339 0.643 0.018 112   0.533 0.467 0.0    90

                                                                      Z   6.59***                 5.66***

    C  A-*  HERE IS A CHILD WHO APPEARS QUITE <CHANNEL>.                  0.170 0.830 0.0   112   0.200 0.789 0.011  90

                                                      GRADE COMPARISONS :  H   2.57*      L   2.77**     A  -0.75

   HEADLINES TEST                                          ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                   1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
15  A  H-N  SWIMMER CROSSES <CHANNEL> IN RECORD TIME       0.310 0.357 0.250 0.083 168  0.474 0.311 0.141 0.074 135

    B  L-V  SPACE TEAM TO <CHANNEL> EFFORTS TOWARDS MARS   0.107 0.571 0.167 0.155 168  0.304 0.467 0.104 0.126 135

                                                       Z    4.57 -3.94  1.88            2.87 -2.62  0.93
                                                            ***   ***                   **    **

                                                                   GRADE COMPARISONS:  H   2.93**     L   4.29***
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                         RESULTS FOR INDIVIDUAL WORDS

LEVEL 2     5  DRUG                                         NORMATIVE DATA

                                               -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                MGF VECTOR      TOT.  %    BASE                                 P(VAL. P(GRAM.
          WD#   S D TH  GC SMCO  N  V  A         N  VALID    N    P(N)   P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

          340   2 1  38  4   1   9  1  0  GR.6: 138 0.783  108   0.963 *0.037 *0.0   *0.0    0.954 0.889 0.156

                                          GR.9:  97 0.639   62   0.806  0.194 *0.0   *0.0    0.823 0.726 0.467

     SENTENCE EVALUATION TEST                                         -------GRADE 6-------  -------GRADE 9-------

ITEM FM          SENTENCE                                             1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 18  B  H-N  THE DOCTORS WILL TEST THE NEW <DRUG> SOON.              0.946 0.045 0.009 112  1.000 0.0   0.0    90

     C  L-V  THE DOCTORS WILL <DRUG> SOME ANIMALS IN THE TEST.       0.670 0.313 0.018 112  0.867 0.122 0.011  90

                                                                   Z  5.26***                 3.59***

     A  A-*  HER <DRUG> DRESS COST LESS THAN MINE.                   0.071 0.920 0.009 112  0.044 0.956 0.0    90

                                             GRADE COMPARISONS :  H   2.23*     L   3.25**     A   1.03

     HEADLINES TEST                                   ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM          HEADLINE                             1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 10  B  H-N  NEW <DRUG> TESTED                        0.619 0.143 0.185 0.054 168  0.600 0.200 0.141 0.059 135

     A  L-V  DOCTORS <DRUG> ANIMALS IN TEST           0.369 0.202 0.345 0.083 168  0.504 0.244 0.156 0.096 135

                                                   Z  4.58 -1.44 -3.34             1.59 -0.88 -0.34
                                                      ***         ***

                                                        GRADE COMPARISONS:  H  -0.34      L   2.35*
                                RESULTS FOR INDIVIDUAL WORDS

LEVEL 2     7  HEDGE                                                NORMATIVE DATA

                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                 MGF VECTOR          TOT.  %    BASE                                  P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A          N  VALID    N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                491  1 3  3A  4   2   9  1  0   GR.6: 126 0.627   79   0.924 *0.076 *0.0    *0.0     0.620 0.494 0.308

                                                GR.9: 102 0.667   68   0.941 *0.059 *0.0    *0.0     0.632 0.529 0.472

    SENTENCE EVALUATION TEST                                                  -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                                      1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
12  A  H-N  THE GARDENER CAME TO CUT THE <HEDGE>.                             0.929 0.063 0.009 112  0.878 0.122 0.0    90

    C  L-V  THE MAYOR TRIED TO <HEDGE> HIS ELECTION PROMISES.                 0.393 0.607 0.0   112  0.400 0.578 0.022  90

                                                                     Z   8.47***                6.67***

    B  A-*  THE NEW CAR WAS A <HEDGE> FAST ONE ON CORNERS.                    0.125 0.875 0.0   112  0.122 0.867 0.011  90

                                                    GRADE COMPARISONS :  H  -1.23       L   0.10       A  -0.18

    HEADLINES TEST                                          ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                    1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 4  B  H-N  MAN TO CUT <HEDGE>                              0.595 0.143 0.196 0.065 168  0.681 0.111 0.163 0.044 135

    A  L-V  MAYORS <HEDGE> ELECTION PROMISES                0.042 0.625 0.173 0.161 168  0.207 0.474 0.089 0.230 135

                                                       Z   10.89 -9.09  0.56              7.84 -6.55  1.83
                                                             ***   ***                     ***   ***

                                                                   GRADE COMPARISONS:  H   1.55       L   4.49***
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                                   RESULTS FOR INDIVIDUAL WORDS
                                                                                    NORMATIVE DATA
LEVEL 2     8  HUM
                                                             -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                                                                                           P(VAL. P(GRAM.
                                             MGF VECTOR      TOT.  %   BASE
                   WD#  S D TH  GC SMCO  N  V  A              N  VALID    N    P(N)     P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                   511  1 1  38  4   1   4  6  0  GR.6: 141 0.738   104 *0.058  0.942 *0.0    *0.0    0.817 0.712 0.270

                                                  GR.9: 106 0.764    81  0.222  0.778 *0.0    *0.0    0.667 0.630 0.373

                                                                              -------GRADE 6-------  -------GRADE 9-------
      SENTENCE EVALUATION TEST
                                                                              1(R)  2(W)   N,I    N  1(R)  2(W)   N,I    N
ITEM FM          SENTENCE
 #
 6   C   H-V  WE WERE ASKED TO <HUM> ALONG AS TEACHER SANG A SONG.            0.866 0.134 0.0    112 0.933 0.067 0.0    90

     B   L-N  THERE WAS A LOUD <HUM> WHEN THE LIGHT OVERHEAD WENT OUT.        0.786 0.205 0.009 112 0.856 0.133 0.011  90

                                                                          Z   1.59                   1.70

     A   A-*  IT WAS VERY <HUM> AFTER HIS SPEECH.                             0.170 0.830 0.0    112 0.133 0.867 0.0    90

                                                       GRADE COMPARISONS :  H   1.56         L   1.28       A   0.71

                                                                 ----------GRADE 6----------  ----------GRADE 9----------
      HEADLINES TEST
                                                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM          HEADLINE
 #
19   B   H-V  CHILDREN <HUM> ALONG WITH SINGING GROUP               0.637 0.143 0.131 0.089 168  0.630 0.111 0.126 0.133 135

     A   L-N  LOUD <HUM> HEARD NEAR POWER PLANT                     0.577 0.119 0.185 0.119 168  0.748 0.059 0.104 0.089 135

                                                                Z   1.12  0.65 -1.35             -2.10  1.53  0.57
                                                                                                   *

                                                                          GRADE COMPARISONS:  H  -0.13       L   3.10**
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                           RESULTS FOR INDIVIDUAL WORDS
                                                                   NORMATIVE DATA
LEVEL 2     9  INCENSE
                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                MGF VECTOR           TOT.   %    BASE                                 P(VAL. P(GRAM.
              WD#  S D TH  GC SMCO  N  V  A            N  VALID   N    P(N)    P(V)    P(A)   P(OT)  P(2) 2ND R) CHANGE)

              534  1 4  4A  4   3   5  5  0  GR.6: 141 0.206   29  1.000 *0.0    *0.0    *0.0    0.517 0.448 0.0

                                             GR.9: 106 0.462   49  0.980 *0.020 *0.0    *0.0    0.510 0.469 0.174

                                                                   -------GRADE 6-------  -------GRADE 9-------
     SENTENCE EVALUATION TEST
                                                                   1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
ITEM FM          SENTENCE
 #
 1   A  H-N  LAST WEEK, I BURNED <INCENSE> IN CHURCH.              0.536 0.455 0.009 112  0.822 0.178 0.0     90

     B  L-V  OUR ACTIONS WILL <INCENSE> YOUR MOTHER, BOB.          0.536 0.464 0.0   112  0.322 0.644 0.033   90

                                                              Z    0.0                    6.78***

     C  A-*  THERE IS AN <INCENSE> INTEREST RATE AT THE BANK.      0.384 0.607 0.009 112  0.344 0.644 0.011   90

                                               GRADE COMPARISONS :  H    4.28***   L  -3.04**     A    0.54

     HEADLINES TEST                                  ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM          HEADLINE                            1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
14   A  H-N  <INCENSE> BURNS DURING ROCK FESTIVAL    0.256 0.238 0.256 0.250 168  0.481 0.178 0.141 0.200 135

     B  L-V  STUDENTS <INCENSE> POLICE               0.065 0.589 0.173 0.173 168  0.163 0.422 0.163 0.252 135

                                                 Z   4.75 -6.54  1.86             5.60 -4.38 -0.51
                                                      ***   ***                    ***   ***

                                                             GRADE COMPARISONS:  H   4.07***   L    2.71**
```

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                                   RESULTS FOR INDIVIDUAL WORDS
                                                                          NORMATIVE DATA
LEVEL 2   10  KNOT
                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                               MGF VECTOR        TOT.  %    BASE                                 P(VAL. P(GRAM.
         WD#  S D TH  GC SMCD   N  V  A            N  VALID   N     P(N)    P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

         577  1 1  38  4   3    7  3  0  GR.6: 126 0.802  101   0.980 *0.020 *0.0   *0.0    0.792 0.703 0.197

                                         GR.9: 102 0.686   70   0.871  0.129 *0.0   *0.0    0.800 0.743 0.404

                                                                      -------GRADE 6-------  -------GRADE 9-------
   SENTENCE EVALUATION TEST
                                                                      1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM        SENTENCE
 #
 3   B  H-N  ANGRY, THE MAN LOOKED AT THE <KNOT> IN HIS FISHING LINE.  0.759 0.232 0.009 112  0.800 0.189 0.011  90

     C  L-V  WE MUST BE CAREFUL TO <KNOT> THE ROPE VERY TIGHTLY.       0.813 0.188 0.0   112  0.778 0.211 0.011  90

                                                                    Z -0.98                    0.37

     A  A-*  I AM <KNOT> THE RIGHT PERSON.                             0.116 0.884 0.0   112  0.067 0.933 0.0    90

                                                  GRADE COMPARISONS :  H   0.70     L  -0.61      A   1.20

   HEADLINES TEST                                   ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                             1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
16   B  H-N  <KNOT> IN TRAFFIC SLOWS TRAVELERS      0.506 0.238 0.161 0.095 168  0.622 0.200 0.096 0.081 135

     A  L-V  SAILORS LEARN TO <KNOT> ROPE MANY WAYS 0.655 0.048 0.220 0.077 168  0.830 0.059 0.067 0.044 135

                                                  Z -2.76  4.99 -1.39            -3.82  3.44  0.89
                                                     **    ***                    ***   ***

                                                          GRADE COMPARISONS:  H   2.03*      L   3.42***
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                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 2    11   MOTOR                                                 NORMATIVE DATA

                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                              MGF VECTOR         TOT.  %   BASE                                   P(VAL. P(GRAM.
           WD#  S D TH  GC SMCO  N  V  A          N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

           713  1 1  4A  4   1   8  2  0  GR.6: 138 0.739  102   0.990 *0.0    *0.010 *0.0     0.735 0.656 0.045

                                          GR.9:  97 0.443   43   0.953 *0.047 *0.0    *0.0     0.767 0.627 0.222

    SENTENCE EVALUATION TEST                                        -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                              1(R)  2(W)   N,I   N    1(R)  2(W)   N,I    N
 #
 17  A  H-N  THE DRIVER FIXED THE <MOTOR> OF HIS CAR.                0.920 0.080 0.0   112   0.944 0.056 0.0     90

     C  L-V  MANY FAMILIES <MOTOR> TO THE BEACH IN THE SUMMER.       0.161 0.839 0.0   112   0.322 0.667 0.011   90

                                                                 Z  11.40***                 8.66***

     B  A-*  THE TREE GREW VERY <MOTOR> IN THE RAIN.                 0.125 0.857 0.018 112   0.100 0.900 0.0     90

                                                   GRADE COMPARISONS :  H   0.69      L   2.70**    A    0.92

    HEADLINES TEST                                       ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                  1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  9  A  H-N  DRIVER GETS <MOTOR> FIXED                  0.476 0.244 0.238 0.042 168  0.704 0.170 0.074 0.052 135

     B  L-V  MORE PEOPLE <MOTOR> IN SUMMER              0.446 0.286 0.137 0.131 168  0.578 0.237 0.096 0.089 135

                                                    Z   0.55 -0.87  2.38              2.16 -1.36 -0.65
                                                                    *                  *

                                                              GRADE COMPARISONS:  H   3.98***   L    2.27*
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                         RESULTS FOR INDIVIDUAL WORDS
                                                                        NORMATIVE DATA
LEVEL 2    12   PLANE
                                                   -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                        MGF VECTOR  TOT.  %    BASE                                  P(VAL. P(GRAM.
            WD#  S D TH  GC SMCO  N  V  A         N   VALID    N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

            827  2 1  48  4   3    9  1  0  GR.6: 126 0.841   106  0.981 *0.019 *0.0    *0.0    0.849 0.576 0.016

                                            GR.9: 102 0.873    89  0.944 *0.056 *0.0    *0.0    0.888 0.663 0.119

                                                                   -------GRADE 6-------  -------GRADE 9-------
    SENTENCE EVALUATION TEST
                                                                   1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM        SENTENCE
 #                                                                 0.955 0.045 0.0   112  0.967 0.033 0.0    90
 9   B  H-N  THE PILOT TESTED THE NEW <PLANE>.
                                                                   0.286 0.714 0.0   112  0.544 0.456 0.0    90
     A  L-V  THE WORKERS HAD TO <PLANE> THE NEW DOORS.
                                                                Z  10.33***                6.59***

                                                                   0.143 0.857 0.0   112  0.167 0.822 0.011  90
     C  A-*  THE <PLANE> CAR WAS FULL OF PEOPLE.
                                                     GRADE COMPARISONS :  H   0.41     L   3.73***   A  -0.68

                                                       ----------GRADE 6----------  ----------GRADE 9----------
    HEADLINES TEST
                                                       1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM        HEADLINE
 #                                                     0.524 0.101 0.298 0.077 168  0.733 0.067 0.141 0.059 135
 8   A  H-N  NEW <PLANE> TESTED
                                                       0.113 0.679 0.119 0.089 168  0.407 0.385 0.104 0.104 135
     B  L-V  WORKERS <PLANE> NEW DOORS
                                                    Z    8.08-10.85  4.03             5.41 -6.26  0.93
                                                          ***   ***   ***              ***   ***

                                                                   GRADE COMPARISONS:  H   3.73***   L    5.93***
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                              RESULTS FOR INDIVIDUAL WORDS
                                                                         NORMATIVE DATA
LEVEL 2   13  POLL                                     '
                                                   -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                MGF VECTOR         TOT.  %   BASE                                   P(VAL. P(GRAM.
              WD#  S D TH  GC SMCO  N  V  A          N  VALID  N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

              844  1 4  48  4   1   8  2  0   GR.6: 126 0.214  27  1.000 *0.0    *0.0    *0.0     0.704 0.296 0.125

                                              GR.9: 102 0.549  56  0.911 *0.089 *0.0    *0.0     0.732 0.464 0.269

    SENTENCE EVALUATION TEST                                          -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                               1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
 #
14   B  H-N  THE LATEST <POLL> SHOWS THAT PEOPLE ARE SPENDING MORE.   0.536 0.455 0.009 112  0.889 0.111 0.0     90

     C  L-V  THE STUDENTS WILL <POLL> THE TEACHERS ABOUT  (SIC)       0.214 0.786 0.0   112  0.367 0.622 0.011   90

                                                                 Z   4.97***                  7.25***

     A  A-*  THE HUNTERS RETURNED WITH A <POLL> DEER.                 0.107 0.884 0.009 112  0.156 0.844 0.0     90

                                           GRADE COMPARISONS :  H    5.41***    L    2.39*      A   -0.82

    HEADLINES TEST                                   ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                              1(R)  2(W)   3(?)  4(NR)  N   1(R)  2(W)   3(?)  4(NR)  N
 #
 6   A  H-N  <POLL> SHOWS PEOPLE SPEND MORE MONEY TODAY  0.095 0.333 0.327 0.244 168  0.481 0.237 0.200 0.081 135

     B  L-V  STUDENTS <POLL> TEACHERS ON DRESS CODE      0.119 0.565 0.149 0.167 168  0.474 0.289 0.141 0.096 135

                                                 Z  -0.71 -4.28  3.84               0.12 -0.97  1.29
                                                          ***    ***

                                                         GRADE COMPARISONS:  H   7.55***   L    6.86***
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                               RESULTS FOR INDIVIDUAL WORDS

LEVEL 2   14   POLICE                                                      NORMATIVE DATA

                                                     -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                   MGF VECTOR        TOT.  %   BASE                                  P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A          N  VALID  N   P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                839  2 1  4A  4   1   9  1  0  GR.6: 138 0.855  118  0.941 *0.059 *0.0   *0.0    0.839 0.737 0.184

                                               GR.9:  97 0.732   71  0.859  0.141 *0.0   *0.0    0.803 0.732 0.558

      SENTENCE EVALUATION TEST                                         -------GRADE 6-------  -------GRADE 9-------

ITEM FM          SENTENCE                                              1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
 19  C  H-N  THE <POLICE> CAUGHT THE BANK ROBBERS.                     0.920 0.071 0.009 112  1.000 0.0   0.0    90

     B  L-V  THE SOLDIERS HAD TO <POLICE> THE AREA.                    0.438 0.554 0.009 112  0.789 0.211 0.0    90

                                                                 Z  7.73***                4.61***

     A  A-*  THE LITTLE BOY WAS VERY <POLICE> DURING THE CONCERT.      0.071 0.929 0.0   112  0.067 0.933 0.0    90

                                                     GRADE COMPARISONS :  H   2.75**    L   5.05***   A   0.13

      HEADLINES TEST                                        ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM          HEADLINE                                   1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR) . N
  #
 11  B  H-N  <POLICE> CATCH BANK ROBBERS                    0.643 0.143 0.185 0.030 168  0.726 0.067 0.156 0.052 135

     A  L-V  SOLDIERS <POLICE> STREETS                      0.500 0.226 0.190 0.083 168  0.652 0.170 0.111 0.067 135

                                                       Z    2.65 -1.97 -0.14             1.31 -2.64  1.07
                                                             **    *                           **

                                                                  GRADE COMPARISONS:  H   1.54      L   2.65**
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                                      RESULTS FOR INDIVIDUAL WORDS
                                                                                NORMATIVE DATA
LEVEL 2    15   SCARE
                                                              -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                                 MGF VECTOR      TOT.  %    BASE                                P(VAL. P(GRAM.
                     WD#   S D TH   GC SMCO   N   V   A           N  VALID    N     P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                     967   2 1   3A   4    1    1   9   0   GR.6: 126 0.802  101 *0.099   0.901 *0.0    *0.0     0.792 0.703 0.254

                                                              GR.9: 102 0.618   63  0.206   0.794 *0.0    *0.0     0.714 0.619 0.590

                                                                                -------GRADE 6-------  -------GRADE 9-------
      SENTENCE EVALUATION TEST
                                                                                1(R)  2(W)   N,I    N   1(R)  2(W)   N,I    N
ITEM FM        SENTENCE
  #
  7  C  H-V  THE POLICE ARRIVED IN TIME TO <SCARE> AWAY THE ROBBER.           0.777 0.223 0.0   112  0.889 0.111 0.0     90

     A  L-N  POLITICAL LEADERS ARE SPREADING A <SCARE> OF ANOTHER WAR.        0.732 0.268 0.0   112  0.800 0.189 0.011   90

                                                                            Z  0.78                     1.65

     B  A-*  HE WAS SITTING AT A <SCARE> DESK IN SCHOOL.                      0.125 0.875 0.0   112  0.089 0.911 0.0     90

                                                       GRADE COMPARISONS :  H   2.09*      L   1.13       A   0.82

                                                       ----------GRADE 6----------  ----------GRADE 9----------
      HEADLINES TEST
                                                       1(R)  2(W)  3(?)  4(NR)  N    1(R)  2(W)  3(?)  4(NR)  N
ITEM FM         HEADLINE
  #
  1  B  H-V  MEN <SCARE> ROBBER AWAY                   0.815 0.042 0.131 0.012 168  0.778 0.067 0.119 0.037 135

     A  L-N  MEN SPREAD <SCARE> OF WAR                 0.268 0.274 0.393 0.065 168  0.393 0.407 0.148 0.052 135

                                                    Z  10.07 -5.84 -5.46               6.42 -6.58 -0.72
                                                        ***   ***   ***                 ***   ***

                                                                  GRADE COMPARISONS:  H  -0.81       L    2.31*
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                                       RESULTS FOR INDIVIDUAL WORDS
                                                                                    NORMATIVE DATA
LEVEL 2    16   SNAKE
                                                                -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                            MGF VECTOR          TOT.   %    BASE                                  P(VAL. P(GRAM.
                     WD#   S D TH  GC SMCO  N   V  A             N   VALID    N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                    1033   2 1  3B  4   1   9  -1  0  GR.6: 126 0.825   104  0.971 *0.029 *0.0    *0.0    0.808 0.751 0.103

                                                      GR.9: 102 0.716    73  0.986 *0.014 *0.0    *0.0    0.658 0.644 0.234

                                                                              -------GRADE 6-------  -------GRADE 9-------
   SENTENCE EVALUATION TEST
                                                                              1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM        SENTENCE
  #                                                                          0.955 0.036 0.009 112  0.956 0.011 0.033  90
 11  C  H-N  WE SAW A BIG, BLACK <SNAKE> AT THE ZOO.
                                                                             0.339 0.661 0.0   112  0.556 0.444 0.0    90
     B  L-V  THE SOLDIERS HAD TO <SNAKE> THROUGH THE GRASS.
                                                                          Z   9.65***                6.24***

                                                                             0.080 0.902 0.018 112  0.078 0.922 0.0    90
     A  A-*  I HAD A <SNAKE> IDEA THAT HE DID IT.
                                                              GRADE COMPARISONS :  H   0.01     L   3.08**    A   0.51

                                                                    ----------GRADE 6----------  ----------GRADE 9----------
   HEADLINES TEST
                                                                    1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM        HEADLINE
  #                                                                0.381 0.298 0.292 0.030 168  0.615 0.193 0.170 0.022 135
  3  A  H-N  <SNAKE> FOUND IN ZOO
                                                                   0.631 0.220 0.119 0.030 168  0.763 0.141 0.074 0.022 135
     B  L-V  SOLDIERS <SNAKE> THROUGH GRASS TO FIND ENEMY
                                                                Z  -4.58  1.62  3.92             -2.63  1.14  2.42
                                                                    ***         ***               **           *

                                                                           GRADE COMPARISONS:  H   4.05***   L   2.47*
```

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                            RESULTS FOR INDIVIDUAL WORDS
                                                                                NORMATIVE DATA
 LEVEL 2    17   SPEAR
                                                     -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                    MGF VECTOR        TOT.  %   BASE                                   P(VAL. P(GRAM.
                WD#   S D TH  GC SMCO  N  V  A          N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                1053  2 1  3A  4   1   8  2  0  GR.6: 141 0.794  112  0.866 *0.134 *0.0   *0.0    0.768 0.660 0.338

                                                GR.9: 106 0.811   86  0.791  0.209 *0.0   *0.0    0.814 0.721 0.645


     SENTENCE EVALUATION TEST                                           -------GRADE 6-------  -------GRADE 9-------

 ITEM FM         SENTENCE                                                1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
   #
  15  B  H-N  THE STUDENTS FOUND AN OLD <SPEAR> IN A CAVE.               0.938 0.063 0.0  112  0.989 0.011 0.0    90

      A  L-V  THE CAVEMEN HAD TO <SPEAR> THEIR MEAT.                     0.875 0.125 0.0  112  0.856 0.144 0.0    90

                                                                     Z   1.60                  3.34***

      C  A-*  HE FOUND A <SPEAR> TABLE IN THE HOUSE.                     0.357 0.625 0.018 112  0.222 0.778 0.0    90

                                                       GRADE COMPARISONS :  H   1.86     L  -0.40      A   2.34*

     HEADLINES TEST                                        ----------GRADE 6----------  ----------GRADE 9----------

 ITEM FM         HEADLINE                                   1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
   #
  20  A  H-N  OLD <SPEAR> FOUND IN CAVE                     0.196 0.518 0.190 0.095 168  0.230 0.600 0.096 0.074 135

      B  L-V  INDIANS <SPEAR> MEAT                          0.256 0.512 0.143 0.089 168  0.267 0.548 0.096 0.089 135

                                                       Z  -1.30  0.11  1.17             -0.70  0.86  0.0

                                                                  GRADE COMPARISONS:  H   0.70      L   0.21
                                    RESULTS FOR INDIVIDUAL WORDS

LEVEL 2   18  SWAMP                                                    NORMATIVE DATA

                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                            MGF VECTOR           TOT.  %    BASE                                    P(VAL. P(GRAM.
         WD#  S D TH  GC SMCD  N  V  A            N  VALID   N    P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

         1111 1 1  4A  4   3   9  1  0   GR.6: 126 0.825  104  0.942 *0.058 *0.0   *0.0     0.769 0.673 0.286

                                         GR.9: 102 0.716   73  0.781  0.219 *0.0   *0.0     0.808 0.781 0.632

    SENTENCE EVALUATION TEST                                   -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                        1(R)  2(W)   N.I   N   1(R)  2(W)  N.I    N
 #
 8   C  H-N  WE FOUND SNAKES IN THE <SWAMP>.                   0.938 0.063 0.0   112  0.978 0.022 0.0    90

     A  L-V  THE BAD STORM WILL <SWAMP> THE SMALL BOATS.       0.464 0.527 0.009 112  0.689 0.311 0.0    90

                                                             Z  7.73***                5.20***

     B  A-*  HE BOUGHT A <SWAMP> PEN AT THE STORE.             0.277 0.723 0.0   112  0.311 0.689 0.0    90

                                              GRADE COMPARISONS :  H   1.38     L   3.20**    A  -0.53

    HEADLINES TEST                                   ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                              1(R)  2(W)  3(?)  4(NR)  N    1(R)  2(W)  3(?)  4(NR)  N
 #
 7   B  H-N  SNAKES FOUND IN <SWAMP>                 0.327 0.452 0.185 0.036 168  0.481 0.319 0.178 0.022 135

     A  L-V  STORMS <SWAMP> SMALL BOATS              0.268 0.476 0.179 0.077 168  0.326 0.526 0.089 0.059 135

                                                   Z  1.19 -0.44  0.14              2.60 -3.45  2.15
                                                                                     **   ***    *

                                                          GRADE COMPARISONS:  H   2.73**    L   1.10
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                                RESULTS FOR INDIVIDUAL WORDS

LEVEL 2   19  TWINE                                                      NORMATIVE DATA

                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                   MGF VECTOR       TOT.  %    BASE                                 P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A         N  VALID   N   P(N)    P(V)   P(A)   P(OT)  P(2) 2ND R) CHANGE)

               1171  1 3  4A  4   1   4  6  0  GR.6: 141 0.404   57  0.912 *0.088 *0.0    *0.0    0.754 0.648 0.270

                                               GR.9: 106 0.557   59  0.746  0.254 *0.0    *0.0    0.610 0.525 0.548

      SENTENCE EVALUATION TEST                                          -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                               1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 4   C  H-N  A PIECE OF <TWINE> MUST BE USED AROUND ALL POSTAL PACKAGES.  0.830 0.161 0.009 112  0.911 0.067 0.022  90

     A  L-V  THE RIVER APPEARED TO <TWINE> THROUGH THE COUNTRYSIDE.       0.554 0.429 0.018 112  0.522 0.467 0.011  90

                                                                   Z   4.49***               5.79***

     B  A-*  I WILL MAKE A <TWINE> EGG FOR US TO EAT.                  0.196 0.804 0.0   112  0.122 0.867 0.011  90

                                         GRADE COMPARISONS :  H    1.68       L  -0.44       A   1.19

      HEADLINES TEST                              ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                          1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 17  B  H-N  PIECE OF <TWINE> ONLY CLUE AT CRIME  0.482 0.196 0.196 0.125 168  0.644 0.096 0.111 0.148 135

     A  L-V  VINES <TWINE> AROUND FENCE POSTS OF OLD HOUSE   0.542 0.179 0.149 0.131 168  0.770 0.067 0.081 0.081 135

                                              Z  -1.09  0.42  1.15             -2.27  0.89  0.83
                                                                                 *

                                                     GRADE COMPARISONS:  H    2.83**     L    4.13***
```

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                          RESULTS FOR INDIVIDUAL WORDS
                                                                NORMATIVE DATA
LEVEL 2   20  WORRY
                                                -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                 MGF VECTOR     TOT.   %   BASE                                  P(VAL. P(GRAM.
               WD#  S D TH  GC SMCO  N  V  A      N  VALID   N    P(N)    P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

              1244  2 1  3B  4   1   2  8  0 GR.6: 126 0.873  110 *0.036  0.964 *0.0   *0.0     0.745 0.700 0.182

                                             GR.9: 102 0.657   67 *0.060  0.940 *0.0   *0.0     0.701 0.611 0.366

                                                           -------GRADE 6-------  -------GRADE 9-------
    SENTENCE EVALUATION TEST
                                                           1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM        SENTENCE
 #
10  A  H-V  MOTHERS ALWAYS <WORRY> ABOUT HIGH PRICES.      0.857 0.134 0.009 112  0.856 0.144 0.0    90

    B  L-N  IT CREATED A NEW <WORRY> FOR US.               0.598 0.393 0.009 112  0.856 0.133 0.011  90

                                                        Z   4.35***               0.0

    C  A-*  THE <WORRY> WEATHER DIDN'T LAST VERY LONG.     0.134 0.866 0.0   112  0.167 0.833 0.0    90

                                             GRADE COMPARISONS :  H  -0.03      L  4.02***   A  -0.65

                                                   ----------GRADE 6----------  ----------GRADE 9----------
    HEADLINES TEST
                                                   1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM        HEADLINE
 #
 2  B  H-V  MOTHERS <WORRY> ABOUT HIGH PRICES      0.202 0.607 0.179 0.012 168  0.511 0.296 0.148 0.044 135

    A  L-N  NEW <WORRY> FACES MOTHERS              0.446 0.226 0.280 0.048 168  0.548 0.252 0.178 0.022 135

                                                Z  -4.78  7.08 -2.21            -0.61  0.82 -0.66
                                                    ***   ***    *

                                                         GRADE COMPARISONS:  H   5.64***   L   1.76
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                                        RESULTS FOR INDIVIDUAL WORDS

 LEVEL 2   21  YELL                                                       NORMATIVE DATA

                                                         -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                           MGF VECTOR     TOT.   %    BASE                                 P(VAL. P(GRAM.
                     WD#  S D TH  GC SMCO  N  V  A          N  VALID    N    P(N)    P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                    1250  1 1  4A  4   1   2  8  0  GR.6: 138 0.920   127 *0.087  0.913 *0.0   *0.0    0.701 0.630 0.162

                                                    GR.9:  97 0.845    82 *0.085  0.915 *0.0   *0.0    0.610 0.573 0.489

    SENTENCE EVALUATION TEST                                                 -------GRADE 6-------  -------GRADE 9-------

 ITEM FM         SENTENCE                                                    1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
  21  B  H-V  THE STUDENTS STARTED TO <YELL> LOUDLY AT THE GAME.            0.884 0.116 0.0   112  0.978 0.022 0.0    90

      C  L-N  EVERYONE COULD HEAR THE LOUD <YELL> AT THE GAME.              0.777 0.223 0.0   112  0.933 0.056 0.011  90

                                                                       Z   2.14*                    1.45

      A  A-*  EVERYONE GOT A <YELL> TICKET FOR THE GAME.                    0.063 0.938 0.0   112  0.067 0.933 0.0    90

                                                            GRADE COMPARISONS :  H   2.53*    L   3.07**    A  -0.12

    HEADLINES TEST                                                 ----------GRADE 6----------  ----------GRADE 9----------

 ITEM FM         HEADLINE                                          1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
  13  B  H-V  STUDENTS <YELL> AT GAME                              0.685 0.101 0.155 0.060 168  0.733 0.104 0.119 0.044 135

      A  L-N  LOUD <YELL> HEARD AT GAME                            0.542 0.149 0.238 0.071 168  0.785 0.089 0.089 0.037 135

                                                              Z    2.69 -1.32 -1.92             -1.00  0.41  0.80
                                                                    **

                                                                          GRADE COMPARISONS:  H   0.93       L   4.42***
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                                   RESULTS FOR INDIVIDUAL WORDS

LEVEL 3     1  ANIMATE                                                      NORMATIVE DATA

                                                      -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                       MGF VECTOR     TOT.  %   BASE                                 P(VAL. P(GRAM.
                  WD#  S D TH  GC SMCO  N  V  A         N  VALID  N    P(N)    P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

                   60  1 6  6   6   1   0  9  1  GR.9: 147 0.490  72 *0.0    0.889 *0.111 *0.0    0.639 0.445 0.125


     SENTENCE EVALUATION TEST                                            -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                  1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 4   C  H-V  A FRENCH CARTOONIST WAS CHOSEN TO <ANIMATE> THE NEW FILM.   0.824 0.176 0.0   108  0.936 0.064 0.0    94

     B  L-A  HE SAW A VAST RANGE OF <ANIMATE> LIFE IN THE VALLEY.        0.556 0.435 0.009 108  0.553 0.436 0.011  94

                                                                      Z  4.27***                6.02***

     A  A-*  THE <ANIMATE> RESTED IN THE FOREST AFTER THE CHASE.         0.361 0.630 0.009 108  0.202 0.798 0.0    94

                                                          GRADE COMPARISONS :  H   2.41*     L  -0.03      A   2.62**

     HEADLINES TEST                                         ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                     1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 11  A  H-V  FRENCH CARTOONISTS <ANIMATE> NEW FILM          0.173 0.556 0.179 0.093 162  0.397 0.411 0.106 0.085 141

     B  L-A  <ANIMATE> SOUND HEARD ON RADIO                 0.012 0.525 0.216 0.247 162  0.028 0.652 0.156 0.163 141

                                                         Z  4.98  0.56 -0.84             7.57 -4.06 -1.23
                                                            ***                          ***   ***

                                                                  GRADE COMPARISONS:  H   4.35***   L   1.00
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                              RESULTS FOR INDIVIDUAL WORDS
                                                                          NORMATIVE DATA
LEVEL 3     2  BLOUSE
                                                         -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                                                                                        P(VAL. P(GRAM.
                                    MGF VECTOR          TOT.  %     BASE
                   WD#  S D TH  GC SMCO  N  V  A          N  VALID    N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                   151  1 2  7   4   1   9 -1  0  GR.9: 143 0.937  134  0.978 *0.022 *0.0    *0.0     0.552 0.500 0.239


                                                                       -------GRADE 6-------  -------GRADE 9-------
    SENTENCE EVALUATION TEST
                                                                       1(R)  2(W)  N,I   N    1(R)  2(W)  N,I   N
ITEM FM          SENTENCE
 #
 15  A  H-N  THE PICNICKER WAVED A <BLOUSE> TO ANGER THE BULL.         0.537 0.463 0.0   108  0.723 0.277 0.0   94

     C  L-V  THE GUSTING WINDS <BLOUSE> OUT THE SAILS.                 0.333 0.639 0.028 108  0.372 0.628 0.0   94

                                                                    Z  3.02**                 4.84***

     B  A-*  HE SOLD HIS <BLOUSE> PIANO WHEN HE MOVED TO NEW YORK.     0.222 0.769 0.009 108  0.138 0.862 0.0   94

                                                   GRADE COMPARISONS :  H    2.73**     L   0.58       A   1.69

                                                      ----------GRADE 6----------  ----------GRADE 9----------
    HEADLINES TEST
                                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM           HEADLINE
 #                                                    0.327 0.253 0.167 0.253 162  0.383 0.397 0.106 0.113 141
 21  B  H-N  <BLOUSE> USED TO ANGER BULL
                                                      0.525 0.154 0.148 0.173 162  0.631 0.156 0.085 0.128 141
     A  L-V  WINDS <BLOUSE> OUT SAILS
                                                   Z  -3.60  2.21  0.46            -4.17  4.53  0.61
                                                        ***    *                     ***   ***

                                                               GRADE COMPARISONS:  H   1.01       L   1.87
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                                   RESULTS FOR INDIVIDUAL WORDS
                                                                     NORMATIVE DATA
LEVEL 3    3  BUFFALO
                                                   -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                                                                                 P(VAL. P(GRAM.
                                 MGF VECTOR         TOT.   %    BASE                           P(2) 2ND R) CHANGE)
             WD#  S D TH  GC SMCO  N  V  A           N   VALID   N    P(N)    P(V)    P(A)   P(OT)

             176  2 1  6   4   1   9 -1  0  GR.9: 143 0.755   108  0.944 *0.056 *0.0    *0.0    0.759 0.592 0.234


                                                                       -------GRADE 6-------  -------GRADE 9-------
      SENTENCE EVALUATION TEST
                                                                       1(R)  2(W)   N,I   N    1(R)  2(W)   N,I   N
ITEM FM          SENTENCE
 #
 14   A  H-N  THERE ARE VERY FEW <BUFFALO> REMAINING ON THE PLAINS.   0.926 0.074 0.0   108   0.947 0.053 0.0     94

      B  L-V  POLITICAL SPEAKERS CAN EASILY <BUFFALO> THEIR AUDIENCES. 0.278 0.722 0.0   108   0.426 0.553 0.021  94

                                                                  Z   9.73***                  7.70***

      C  A-*  THE <BUFFALO> BANK OF THE RIVER CAVED IN.               0.343 0.648 0.009 108   0.255 0.745 0.0     94

                                                GRADE COMPARISONS :  H    0.60        L   2.20*     A   1.48

                                                ----------GRADE 6----------  ----------GRADE 9----------
      HEADLINES TEST
                                                1(R)  2(W)  3(?)  4(NR)  N    1(R)  2(W)  3(?)  4(NR)  N
ITEM FM          HEADLINE
 #                                              0.284 0.346 0.222 0.148 162  0.447 0.355 0.106 0.092 141
 16   A  H-N  FEW <BUFFALO> REMAIN
                                                0.080 0.494 0.130 0.296 162  0.227 0.468 0.099 0.206 141
      B  L-V  SPEAKERS <BUFFALO> AUDIENCE AT TALKS
                                             Z   4.75 -2.70  2.19                3.91 -1.94  0.20
                                                 ***   **     *                  ***

                                                           GRADE COMPARISONS:  H   2.95**    L   3.58***
                                   RESULTS FOR INDIVIDUAL WORDS

LEVEL 3    4  ECLIPSE                                                       NORMATIVE DATA

                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                  MGF VECTOR        TOT.  %   BASE                                    P(VAL. P(GRAM.
                WD#  S D TH  GC SMCD  N  V  A         N  VALID  N    P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

                347  1 3  6   4   1   8  2  0  GR.9: 147 0.735 108  0.944 *0.056 *0.0    *0.0     0.556 0.500 0.389


      SENTENCE EVALUATION TEST                                        -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                               1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
  2  A  H-N  MANY PEOPLE WERE ABLE TO WATCH THE RECENT <ECLIPSE>.     0.870 0.130 0.0   108  0.936 0.064 0.0    94

     C  L-V  VISITING FOREIGN TEAMS OFTEN <ECLIPSE> OUR PERFORMANCE.  0.296 0.704 0.0   108  0.319 0.681 0.0    94

                                                                   Z   8.56***               8.75***

     B  A-*  THE <ECLIPSE> DRIVER WAS ABLE TO FINISH THE RACE.        0.324 0.676 0.0   108  0.255 0.745 0.0    94

                                               GRADE COMPARISONS :  H    1.56      L   0.35      A   1.07

      HEADLINES TEST                                       ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                    1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
  9  A  H-N  <ECLIPSE> SEEN BY MANY LAST NIGHT             0.420 0.235 0.216 0.130 162  0.596 0.262 0.121 0.021 141

     B  L-V  FOREIGN TEAMS <ECLIPSE> HOME TEAM PERFORMANCE 0.247 0.265 0.167 0.321 162  0.418 0.319 0.071 0.191 141

                                                        Z   3.30 -0.64  1.13             2.98 -1.05  1.42
                                                            ***                          **

                                                               GRADE COMPARISONS:  H    3.06**     L    3.18**
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                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 3    5  EPIDEMIC                                              NORMATIVE DATA

                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                              MGF VECTOR          TOT.   %    BASE                                  P(VAL. P(GRAM.
           WD#  S D TH  GC SMCO  N  V  A            N  VALID    N    P(N)   P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

           367  1 4  8   5   1   8  0  2  GR.9: 147 0.701  103   0.971 *0.0   *0.029 *0.0    0.534 0.379 0.256


    SENTENCE EVALUATION TEST                                            -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                 1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 6   B  H-N  THE FLU <EPIDEMIC> WAS SPREADING RAPIDLY.                  0.796 0.204 0.0   108  0.936 0.064 0.0   94

     A  L-A  THE PANIC REACHED <EPIDEMIC> PROPORTIONS.                  0.528 0.472 0.0   108  0.670 0.330 0.0   94

                                                                  Z   4.17***                 4.59***

     C  A-*  BAKERS OFTEN <EPIDEMIC> THE BREAD BEFORE BAKING.           0.278 0.694 0.028 108  0.245 0.755 0.0   94

                                                    GRADE COMPARISONS :  H    2.87**     L   2.06*      A   0.96

    HEADLINES TEST                                      ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
17   A  H-N  <EPIDEMIC> SPREADS RAPIDLY                 0.494 0.160 0.130 0.216 162  0.745 0.128 0.021 0.106 141

     B  L-A  PANIC REACHES <EPIDEMIC> PROPORTIONS       0.074 0.389 0.154 0.383 162  0.206 0.433 0.184 0.177 141

                                                    Z    8.38 -4.61 -0.64            9.06 -5.70 -4.51
                                                          ***   ***                   ***   ***   ***

                                                              GRADE COMPARISONS:  H    4.47***    L    3.34***
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                         RESULTS FOR INDIVIDUAL WORDS

LEVEL 3    6  HOIST                                              NORMATIVE DATA

                                               -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                            MGF VECTOR         TOT.  %    BASE                                P(VAL. P(GRAM.
          WD#  S D TH  GC SMCO  N  V  A          N  VALID   N   P(N)   P(V)   P(A)   P(OT)   P(2) 2ND R) CHANGE)

          502  1 4  7   4   1   2  8  0   GR.9: 147 0.463   68 *0.074  0.926 *0.0    *0.0    0.515 0.383 0.577


     SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------

ITEM FM          SENTENCE                                                  1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 16  A  H-V  THE WORKERS TRIED TO <HOIST> THE HEAVY PIANO.                 0.602 0.398 0.0   108  0.787 0.202 0.011  94

     C  L-N  THE <HOIST> WAS BROKEN WHEN THEY UNLOADED THE CARGO.          0.759 0.231 0.009 108  0.787 0.213 0.0    94

                                                                         Z -2.48*                 0.0

     B  A-*  THEY GAVE A <HOIST> PARTY IN ORDER TO RAISE FUNDS.            0.519 0.463 0.019 108  0.319 0.681 0.0    94

                                                  GRADE COMPARISONS :  H   2.84**    L   0.47       A   3.12**

     HEADLINES TEST                                         ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM          HEADLINE                                   1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  5  B  H-V  WORKERS <HOIST> PIANO                          0.426 0.265 0.160 0.148 162  0.610 0.213 0.128 0.050 141

     A  L-N  <HOIST> BROKEN; WORK STOPS                     0.241 0.216 0.333 0.210 162  0.496 0.106 0.298 0.099 141

                                                         Z   3.54  1.04 -3.61             1.92  2.44 -3.49
                                                             ***        ***                       *    ***

                                                                  GRADE COMPARISONS:  H   3.20**    L   4.63***
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                              RESULTS FOR INDIVIDUAL WORDS
                                                                       NORMATIVE DATA
LEVEL 3     7  IMPRESS
                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                 MGF VECTOR       TOT.  %    BASE                                P(VAL. P(GRAM.
            WD#  S D TH  GC SMCO  N  V  A           N  VALID   N    P(N)    P(V)   P(A)  P(OT)  P(2) 2ND R) CHANGE)

            530  2 3  5A  4   1    1  9  0  GR.9: 147 0.707  104 *0.019  0.981 *0.0   *0.0    0.721 0.615 0.188


                                                                      -------GRADE 6-------  -------GRADE 9-------
     SENTENCE EVALUATION TEST
                                                                      1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM         SENTENCE
  #
 17  B  H-V  THE OLD IDEAS ON FREEDOM STILL <IMPRESS> TODAY'S LEADERS.  0.861 0.139 0.0   108  0.936 0.064 0.0    94

     A  L-N  HIS TEACHER'S IDEA MADE A STRONG <IMPRESS> ON HIM.         0.556 0.444 0.0   108  0.298 0.702 0.0    94

                                                                   Z   4.94***                9.00***

     C  A-*  THE <IMPRESS> BRIDGE COLLAPSED AS THE BOMB EXPLODED.       0.250 0.731 0.019 108  0.245 0.755 0.0    94

                                                    GRADE COMPARISONS :  H   1.74      L  -3.68***   A   0.39

                                                         ----------GRADE 6----------  ----------GRADE 9----------
     HEADLINES TEST
                                                         1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM         HEADLINE
  #
  6  A  H-V  OLD IDEAS <IMPRESS> LEADERS                 0.401 0.253 0.259 0.086 162  0.638 0.227 0.099 0.035 141

     B  L-N  GOOD <IMPRESS> GIVEN BY STUDENTS TO TEACHERS 0.346 0.284 0.259 0.111 162  0.482 0.191 0.248 0.078 141

                                                     Z   1.03 -0.63  0.0              2.64  0.73 -3.30
                                                                                       **          ***

                                                               GRADE COMPARISONS:  H   4.12***   L   2.41*
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                                          RESULTS FOR INDIVIDUAL WORDS

LEVEL 3    8  MELLOW                                                              NORMATIVE DATA

                                                       -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                    MGF VECTOR         TOT.  %    BASE                                 P(VAL. P(GRAM.
             WD#  S D TH  GC SMCO  N  V  A              N  VALID   N    P(N)     P(V)    P(A)  P(OT)   P(2) 2ND R) CHANGE)

             678  1 5  5A  6   1   0  1  9   GR.9: 143 0.664    95 *0.0    *0.011  0.989 *0.0    0.747 0.589 0.125


    SENTENCE EVALUATION TEST                                               -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                                   1(R)  2(W)   N,I    N  1(R)  2(W)   N,I    N
 #
 12  C  H-A  THE RADIO STATION BROADCASTS <MELLOW> SOUNDS.                 0.602 0.398 0.0   108  0.915 0.085 0.0    94

     B  L-V  WINES <MELLOW> IN COOL DARK CELLARS.                          0.491 0.509 0.0   108  0.755 0.245 0.0    94

                                                                        Z  1.64                     2.95**

     A  A-*  WE COOKED THE <MELLOW> FOR TWO HOURS BEFORE IT WAS READY.     0.250 0.750 0.0   108  0.149 0.851 0.0    94

                                                    GRADE COMPARISONS :  H    5.11***   L   3.85***   A    1.78

    HEADLINES TEST                                           ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                     1(R)  2(W)  3(?)  4(NR)  N  1(R)  2(W)  3(?)  4(NR)  N
 #
 14  B  H-A  <MELLOW> SOUNDS ON NEW RADIO STATION             0.327 0.358 0.148 0.167 162  0.418 0.440 0.078 0.064 141

     A  L-V  WINES <MELLOW> IN CELLAR                         0.210 0.346 0.321 0.123 162  0.582 0.199 0.135 0.085 141

                                                          Z   2.38  0.23 -3.67             -2.74  4.34 -1.55
                                                               *          ***               **    ***

                                                                       GRADE COMPARISONS:  H   1.64      L   6.64***
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                                  RESULTS FOR INDIVIDUAL WORDS

LEVEL 3    9  NIBBLE                                                          NORMATIVE DATA

                                                              -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                         MGF VECTOR          TOT.  %    BASE                                 P(VAL. P(GRAM.
                     WD#  S D TH  GC SMCO  N  V  A            N  VALID   N    P(N)    P(V)    P(A)  P(OT)  P(2) 2ND R) CHANGE)

                     735  1 1  6   4   1   3  7  0  GR.9: 143 0.769  110 *0.109  0.891 *0.0   *0.0    0.673 0.600 0.470


    SENTENCE EVALUATION TEST                                            -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                 1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
  #
 20  C  H-V  NOT LIKING VEGETABLES, CHILDREN OFTEN JUST <NIBBLE> AT THEM.  0.852 0.139 0.009 108  0.926 0.074 0.0    94

     A  L-N  A SMALL <NIBBLE> FROM A CAKE HAS GOT ME INTO TROUBLE AGAIN.   0.731 0.269 0.0   108  0.777 0.223 0.0    94

                                                                  Z  2.18*                   2.87**

     B  A-*  THE <NIBBLE> BOOK CAN BE FOUND ON THE LIBRARY SHELF.       0.343 0.648 0.009 108  0.117 0.883 0.0    94

                                                    GRADE COMPARISONS :  H   1.64      L   0.74      A   3.88***

    HEADLINES TEST                                         ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                    1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
 19  A  H-V  RATS <NIBBLE> AT FOOD IN ALLEYS               0.290 0.438 0.160 0.111 162  0.397 0.475 0.071 0.057 141

     B  L-N  <NIBBLE> TAKEN OUT OF GIANT SWISS CHEESE      0.549 0.154 0.142 0.154 162  0.645 0.184 0.071 0.099 141

                                                     Z  -4.73  5.60  0.47              -4.17  5.19  0.0
                                                         ***   ***                      ***   ***

                                                                  GRADE COMPARISONS:  H   1.96*     L   1.70
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                                        RESULTS FOR INDIVIDUAL WORDS
LEVEL 3    10   NOVEL
                                                                         NORMATIVE DATA

                                                             -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                         MGF VECTOR          TOT.   %    BASE                                 P(VAL. P(GRAM.
                    WD#  S D TH  GC SMCO  N  V  A             N   VALID   N    P(N)   P(V)    P(A)  P(OT)  P(2) 2ND R) CHANGE)

                    746  1 3  5A  5   4   8  0  2  GR.9: 138 0.717   99  0.879 *0.0   *0.121 *0.0   0.667 0.556 0.527


      SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------
ITEM FM        SENTENCE                                                     1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
  7  A  H-N  THE PROFESSOR HELD A DISCUSSION ABOUT HIS NEW <NOVEL>.         0.852 0.148 0.0   108  0.947 0.053 0.0    94

     C  L-A  A <NOVEL> IDEA WON THE ATTENTION OF OUR SCIENTIFIC LEADERS.    0.620 0.380 0.0   108  0.702 0.298 0.0    94

                                                                       Z   3.86***               4.41***

     B  A-*  SNAKES <NOVEL> THROUGH THE GRASS LOOKING FOR FOOD.             0.324 0.676 0.0   108  0.106 0.883 0.011  94

                                                        GRADE COMPARISONS :  H   2.21*    L   1.22      A   3.50***
      HEADLINES TEST                                           ----------GRADE 6----------  ----------GRADE 9----------
ITEM FM        HEADLINE                                        1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  1  B  H-N  PROFESSOR TALKS ABOUT NEW <NOVEL>                 0.512 0.247 0.173 0.068 162  0.823 0.064 0.078 0.035 141

     A  L-A  <NOVEL> IDEA WINS ATTENTION OF SCIENTIFIC LEADER  0.302 0.302 0.315 0.080 162  0.546 0.298 0.099 0.057 141

                                                          Z    3.84 -1.12 -2.98              5.00 -5.11 -0.63
                                                               ***         **                ***   ***

                                                                       GRADE COMPARISONS:  H   5.68***   L   4.29***
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                                   RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   11  OUTRAGE                                                        NORMATIVE DATA

                                                    -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                   MGF VECTOR       TOT.  %    BASE                                 P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A         N  VALID   N    P(N)   P(V)   P(A)  P(OT)   P(2) 2ND R) CHANGE)

                775  1 5  6   4   1   7  3  0  GR.9: 147 0.741  109  0.890 *0.110 *0.0   *0.0    0.596 0.495 0.389


    SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                    1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
 #
 19  A  H-N  MEN SEEM TO THINK THAT LONG SKIRTS ARE AN <OUTRAGE>.          0.694 0.306 0.0   108  0.840 0.160 0.0    94

     C  L-V  THE STUDENTS TRIED TO <OUTRAGE> THE TEACHERS WITH DEMANDS.    0.722 0.269 0.009 108  0.691 0.309 0.0    94

                                                                         Z -0.45                   2.41*

     B  A-*  AN <OUTRAGE> COMEDY OPENED LAST NIGHT ON BROADWAY.            0.583 0.398 0.019 108  0.553 0.447 0.0    94

                                                     GRADE COMPARISONS :  H   2.43*    L  -0.48       A   0.70

    HEADLINES TEST                                      ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 18  B  H-N  LATEST TRIAL AN <OUTRAGE>, JUDGE CLAIMS    0.130 0.407 0.210 0.253 162  0.362 0.376 0.142 0.121 141

     A  L-V  TEACHERS <OUTRAGE> STUDENTS WITH NEW RULES 0.228 0.451 0.204 0.117 162  0.496 0.383 0.050 0.071 141

                                                      Z -2.32 -0.79  0.14            -2.29 -0.12  2.63
                                                          *                             *          **

                                                                   GRADE COMPARISONS:  H   4.73***   L   4.87***
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                         RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   12  OVERTURN                                          NORMATIVE DATA

                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                          MGF VECTOR          TOT.  %    BASE                                     P(VAL. P(GRAM.
             WD#  S D TH  GC SMCO  N  V  A          N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

             777  1 1  5A  4   1   1  9  0  GR.9: 138 0.826  114 *0.088  0.912 *0.0    *0.0     0.702 0.684 0.244


   SENTENCE EVALUATION TEST                                          -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                              1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
  9  C  H-V  THE ICE CAUSED MANY CARS TO <OVERTURN> ON THE HIGHWAY.  0.833 0.157 0.009 108  0.883 0.117 0.0    94

     B  L-N  THE <OVERTURN> WAS CAUSED BY SNOW AND ICY ROADS.         0.778 0.222 0.0   108  0.872 0.128 0.0    94

                                                                Z  1.03                     0.22

     A  A-*  THE <OVERTURN> SHIRT WAS DRYING IN THE SUN.             0.370 0.620 0.009 108  0.287 0.713 0.0    94

                                             GRADE COMPARISONS :  H   1.00      L   1.75      A   1.39

   HEADLINES TEST                                  ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                            1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  3  A  H-V  CARS <OVERTURN> ON HIGHWAY            0.586 0.185 0.198 0.031 162  0.681 0.241 0.071 0.007 141

     B  L-N  <OVERTURN> CAUSED BY SNOW AND ICY ROADS  0.469 0.247 0.216 0.068 162  0.496 0.291 0.170 0.043 141

                                              Z   2.11 -1.35 -0.41              3.15 -0.94 -2.56
                                                   *                             **          *

                                                        GRADE COMPARISONS:  H   1.70      L   0.47
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                                 RESULTS FOR INDIVIDUAL WORDS
                                                                      NORMATIVE DATA
LEVEL 3   13  PARROT
                                                -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                   MGF VECTOR   TOT.  %    BASE                                 P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A        N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                791  1 2  5B  4   1   9 -1  0  GR.9: 143 0.853  122  0.975 *0.025 *0.0   *0.0    0.574 0.517 0.159


                                                                   -------GRADE 6-------  -------GRADE 9-------
   SENTENCE EVALUATION TEST
                                                                   1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
ITEM FM        SENTENCE
 #
 11  A  H-N  THEY GAVE HIM A <PARROT> FOR HIS BIRTHDAY.            0.926 0.074 0.0   108  0.947 0.053 0.0    94

     B  L-V  THE CHILDREN WILL OFTEN <PARROT> THEIR PARENTS.       0.269 0.713 0.019 108  0.298 0.702 0.0    94

                                                              Z     9.85***                  9.18***

     C  A-*  THE STORM CLEARED, LEAVING A <PARROT> DISASTER.       0.259 0.741 0.0   108  0.160 0.840 0.0    94

                                                   GRADE COMPARISONS :  H   0.60      L   0.46      A   1.73

                                                        ----------GRADE 6----------  ----------GRADE 9----------
   HEADLINES TEST
                                                        1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
ITEM FM        HEADLINE
 #
 13  A  H-N  <PARROT> GIVEN TO CHILD                    0.611 0.111 0.210 0.068 162  0.809 0.085 0.078 0.028 141

     B  L-V  CHILDREN <PARROT> THEIR PARENTS            0.136 0.605 0.093 0.167 162  0.284 0.567 0.071 0.078 141

                                                    Z    8.84 -9.27  2.95              8.85 -8.64  0.23
                                                          ***   ***   **                ***   ***

                                                           GRADE COMPARISONS:  H   3.75***   L   3.18**
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                               RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   14  PENSION                                                NORMATIVE DATA

                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                  MGF VECTOR      TOT.  %    BASE                                  P(VAL. P(GRAM.
              WD#  S D TH  GC SMCO  N  V  A          N  VALID   N   P(N)   P(V)   P(A)  P(OT)   P(2) 2ND R) CHANGE)

              807  1 7  6   4   1   9  1  0  GR.9: 138 0.659   91  1.000 *0.0   *0.0   *0.0    0.582 0.483 0.091


   SENTENCE EVALUATION TEST                                            -------GRADE 6-------   -------GRADE 9-------

ITEM FM         SENTENCE                                               1(R)  2(W)  N,I   N    1(R)  2(W)  N,I    N
 #
 8   B  H-N  A LARGE <PENSION> WAS PLANNED FOR THE UNION WORKERS.      0.657 0.315 0.028 108  0.915 0.085 0.0    94

     C  L-V  THE EMPLOYERS WILL <PENSION> THE UNION WORKERS.           0.593 0.398 0.009 108  0.670 0.330 0.0    94

                                                                    Z  0.98                   4.14***

     A  A-*  THE MAN WORKED IN THE <PENSION> MINE.                     0.389 0.593 0.019 108  0.298 0.702 0.0    94

                                                   GRADE COMPARISONS :  H   4.39***   L   1.14      A   1.62

   HEADLINES TEST                                  ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                           1(R)  2(W)  3(?)  4(NR)  N    1(R)  2(W)  3(?)  4(NR)  N
 #
 2   A  H-N  <PENSION> PLANNED FOR UNION WORKERS   0.080 0.389 0.315 0.216 162  0.390 0.426 0.135 0.050 141

     B  L-V  EMPLOYERS <PENSION> UNION WORKERS     0.056 0.463 0.173 0.309 162  0.248 0.454 0.170 0.128 141

                                                Z  0.88 -1.35  2.98             2.55 -0.48 -0.83
                                                               **               *

                                                             GRADE COMPARISONS:  H   6.45***   L   4.75***
                               RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   15  PLANK                                                  NORMATIVE DATA

                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                  MGF VECTOR       TOT.  %    BASE                                P(VAL. P(GRAM.
               WD#  S D TH  GC SMCO  N  V  A         N  VALID   N    P(N)    P(V)    P(A)   P(OT)  P(2) 2ND R) CHANGE)

               828  1 2  5A  4    3   9  1  0  GR.9: 147 0.735  108  1.000 *0.0    *0.0    *0.0    0.583 0.555 0.100


    SENTENCE EVALUATION TEST                                                 -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                   1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 1  C  H-N  THE CAPTURED PIRATE WAS FORCED TO WALK THE <PLANK>.         0.907 0.093 0.0   108  0.957 0.043 0.0    94

    B  L-V  THE BOAT WILL BE READY AFTER THE WORKERS <PLANK> THE DECK.  0.435 0.565 0.0   108  0.511 0.489 0.0    94

                                                                   Z   7.39***                  6.93***

    A  A-*  THE THIEVES PLANNED THE ROBBERY IN <PLANK> DAYLIGHT.        0.120 0.880 0.0   108  0.170 0.830 0.0    94

                                                 GRADE COMPARISONS :  H   1.40      L   1.07      A  -1.01

    HEADLINES TEST                                       ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                  1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 8  B  H-N  CAPTURED PIRATE WALKS <PLANK>               0.500 0.241 0.185 0.074 162  0.504 0.277 0.170 0.050 141

    A  L-V  WORKERS <PLANK> DECK OF NEW BOAT            0.210 0.512 0.173 0.105 162  0.454 0.348 0.135 0.064 141

                                                  Z    5.46 -5.05  0.29              0.83 -1.29  0.83
                                                        ***   ***

                                                            GRADE COMPARISONS:  H   0.06      L   4.53***
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                                   RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   16   PRESSURE                                                      NORMATIVE DATA

                                                            -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                    MGF VECTOR          TOT.   %    BASE                                      P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A            N   VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

                867  2 3  5A  4   1   9  1  0  GR.9: 147 0.789  116  0.862 *0.138 *0.0    *0.0     0.871 0.871 0.327


    SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                                  1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 18  C  H-N  THE <PRESSURE> OF DOMESTIC PROBLEMS RESTS ON THE LEADERS.    0.769 0.204 0.028 108  0.947 0.043 0.011  94

     A  L-V  MINE WORKERS WILL <PRESSURE> CONGRESS FOR APPROVAL OF A LAW. 0.620 0.380 0.0   108  0.915 0.085 0.0    94

                                                                     Z   2.36*                   0.86

     B  A-*  THE GOVERNMENT HAS APPROVED THE <PRESSURE> COIN LAW.         0.333 0.667 0.0   108  0.383 0.617 0.0    94

                                                      GRADE COMPARISONS :  H   3.55***    L   4.87***    A  -0.73

    HEADLINES TEST                                            ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  7  B  H-N  NEW <PRESSURE> ON LEADERS                        0.346 0.290 0.222 0.142 162  0.475 0.191 0.227 0.106 141

     A  L-V  DOCTORS <PRESSURE> FOR NEW DRUGS                 0.099 0.685 0.160 0.056 162  0.298 0.596 0.064 0.043 141

                                                          Z   5.35 -7.11  1.41              3.06 -6.95  3.89
                                                               ***   ***                     **   ***   ***

                                                                 GRADE COMPARISONS:  H   2.29*      L   4.39***
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                          RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   17  PRIMARY                                               NORMATIVE DATA

                                                 -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                    MGF VECTOR   TOT.  %   BASE                                  P(VAL. P(GRAM.
                 WD#  S D TH  GC SMCO  N  V  A      N  VALID   N    P(N)     P(V)    P(A)  P(OT)  P(2) 2ND R) CHANGE)

                 873  2 5  5B  5   3   1  0  9  GR.9: 138 0.848  117 *0.077 *0.0     0.923 *0.0    0.346 0.803 0.234


    SENTENCE EVALUATION TEST                                          -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                               1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 21  C  H-A  THE MEN GAVE THEIR <PRIMARY> REASON FOR NOT WORKING.     0.750 0.241 0.009 108  0.894 0.106 0.0    94

     B  L-N  THIS YEAR, I HAVE DECIDED TO RUN IN THE <PRIMARY>.       0.546 0.444 0.009 108  0.926 0.074 0.0    94

                                                                  Z   3.13**                 -0.76

     A  A-*  YOU MUST <PRIMARY> THE WALL BEFORE PAINTING IT.          0.204 0.796 0.0   108  0.160 0.840 0.0    94

                                             GRADE COMPARISONS :  H   2.63**   L   6.01***   A   0.81

    HEADLINES TEST                                  ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                             1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
 20  A  H-A  PROSECUTOR PRESENTS <PRIMARY> EVIDENCE 0.123 0.407 0.191 0.278 162  0.496 0.255 0.092 0.156 141

     B  L-N  CANDIDATE LOSES <PRIMARY>              0.235 0.278 0.222 0.265 162  0.574 0.177 0.128 0.121 141

                                                Z  -2.61  2.46 -0.69             -1.31  1.59 -0.95
                                                     **    *

                                                          GRADE COMPARISONS:  H   7.09***   L   6.04***
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                                          RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   18  SLEIGH                                                                NORMATIVE DATA

                                                             -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                      MGF VECTOR             TOT.  %     BASE                                 P(VAL. P(GRAM.
                  WD#  S D TH  GC SMCO  N  V  A               N  VALID    N    P(N)    P(V)   P(A)  P(OT)    P(2) 2ND R) CHANGE)

                  1027  1 1  5A  4   1   8  2  0  GR.9: 147 0.646    95  0.937 *0.063 *0.0   *0.0     0.758 0.706 0.463


      SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                     1(R)  2(W)   N,I   N   1(R)  2(W)   N,I    N
  #
  3  B  H-N  THE SKI PATROL FOUND A <SLEIGH> IN ONE OF THE SNOWDRIFTS.      0.769 0.231 0.0   108  0.883 0.117 0.0    94

     A  L-V  THE GERMAN TEAM WILL <SLEIGH> DOWN THE NEW TRAIL FIRST.        0.481 0.519 0.0   108  0.574 0.426 0.0    94

                                                                        Z   4.36***               4.76***

     C  A-*  THE ACTOR'S PERFORMANCE ON OPENING NIGHT WAS VERY <SLEIGH>.    0.324 0.667 0.009 108  0.245 0.755 0.0    94

                                                        GRADE COMPARISONS :  H    2.12*     L    1.32      A   1.38

      HEADLINES TEST                                            ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                         1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
 10  A  H-N  <SLEIGH> FOUND IN SNOWDRIFT                        0.414 0.222 0.216 0.148 162  0.574 0.227 0.128 0.071 141

     B  L-V  STUDENTS <SLEIGH> DOWN NEW TRAIL                   0.321 0.302 0.191 0.185 162  0.447 0.355 0.113 0.085 141

                                                            Z   1.73 -1.64  0.55              2.14 -2.36  0.37
                                                                                               *     *

                                                                     GRADE COMPARISONS:  H    2.79**    L    2.25*
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                         RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   19  SPLINTER                                                       NORMATIVE DATA

                                                        -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                       MGF VECTOR        TOT.   %   BASE                                 P(VAL. P(GRAM.
                WD#   S D TH  GC SMCO  N  V  A            N  VALID   N    P(N)    P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

               1059   1 3  7   4   1   7  3  0  GR.9: 138 0.884  122  0.893 *0.107 *0.0    *0.0     0.754 0.697 0.506


    SENTENCE EVALUATION TEST                                                  -------GRADE 6-------  -------GRADE 9-------

ITEM FM         SENTENCE                                                      1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
 #
 10  B  H-N  THE DOCTOR REMOVED A <SPLINTER> FROM THE WORKER'S EYE.           0.907 0.083 0.009 108  0.957 0.043 0.0    94

     A  L-V  THEY THREW BOMBS TO <SPLINTER> THE WORKERS' SHACKS.              0.426 0.574 0.0   108  0.585 0.415 0.0    94

                                                                           Z   7.51***                 6.08***

     C  A-*  THE <SPLINTER> CAR RAN WELL AT HIGH SPEEDS.                      0.278 0.722 0.0   108  0.255 0.745 0.0    94

                                                   GRADE COMPARISONS :  H   1.40      L   2.26*     A   0.36

    HEADLINES TEST                                       ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM         HEADLINE                                 1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
 #
  4  B  H-N  <SPLINTER> FOUND NEAR WORKER'S EYE          0.660 0.068 0.179 0.093 162  0.716 0.050 0.163 0.071 141

     A  L-V  BOMBS <SPLINTER> WORKERS' SHACKS            0.099 0.580 0.235 0.086 162  0.220 0.624 0.099 0.057 141

                                                      Z  10.42 -9.85 -1.23             8.35-10.21  1.59
                                                          ***   ***                     ***   ***

                                                                     GRADE COMPARISONS:  H   1.04      L   2.90**
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                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   20  STRUCTURE                                                    NORMATIVE DATA

                                                      -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                   MGF VECTOR          TOT.  %    BASE                                  P(VAL. P(GRAM.
                 WD#  S D TH  GC SMCO  N  V  A          N  VALID   N    P(N)   P(V)    P(A)   P(OT)  P(2) 2ND R) CHANGE)

                1090  3 4  7   4   1   9 -1  0  GR.9: 143 0.874  125  0.984 *0.016 *0.0   *0.0    0.784 0.776 0.144


     SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                    1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
 13  B  H-N  THE WORKERS COMPLETED THE NEW <STRUCTURE>.                   0.880 0.111 0.009 108  0.904 0.085 0.011  94

     C  L-V  AN AUTHOR MUST <STRUCTURE> THE CONTENT OF HIS NOVEL.         0.657 0.315 0.028 108  0.649 0.351 0.0    94

                                                                     Z    3.87***                4.20***

     A  A-*  A <STRUCTURE> WAVE CAUSED THE FLOODING OF THE STREAM.        0.454 0.537 0.009 108  0.351 0.649 0.0    94

                                                     GRADE COMPARISONS :  H   0.56      L  -0.13       A   1.61

     HEADLINES TEST                                        ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                    1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
 15  A  H-N  NEW <STRUCTURE> COMPLETED                     0.463 0.185 0.210 0.142 162  0.695 0.170 0.050 0.085 141

     B  L-V  AUTHORS <STRUCTURE> CONTENT OF NOVELS         0.086 0.463 0.179 0.272 162  0.128 0.610 0.149 0.113 141

                                                      Z    7.59 -5.34  0.70             9.68 -7.57 -2.79
                                                           ***   ***                    ***   ***   **

                                                                  GRADE COMPARISONS:  H   4.07***   L   1.17
                              RESULTS FOR INDIVIDUAL WORDS

LEVEL 3   21  TARRY                                                     NORMATIVE DATA

                                                  -----DATA FROM FIRST SENTENCE WRITTEN-----  --2ND SENTENCE---
                                  MGF VECTOR      TOT.  %    BASE                                 P(VAL. P(GRAM.
                WD#  S D TH  GC SMCO  N  V  A         N  VALID   N    P(N)     P(V)    P(A)   P(OT)   P(2) 2ND R) CHANGE)

               1118  1 4  5A  6   4   0  9  1  GR.9: 147 0.367   54 *0.0     0.963 *0.037 *0.0     0.407 0.333 0.0


    SENTENCE EVALUATION TEST                                              -------GRADE 6-------  -------GRADE 9-------

ITEM FM        SENTENCE                                                   1(R)  2(W)   N,I   N   1(R)  2(W)   N,I   N
  #
  5  B  H-V  STUDENTS OFTEN <TARRY> ON THE WAY TO AND FROM SCHOOL         0.500 0.491 0.009 108  0.713 0.287 0.0    94

     A  L-A  THE <TARRY> ROADS CREATED MANY PROBLEMS FOR DRIVERS.         0.546 0.417 0.037 108  0.596 0.404 0.0    94

                                                                        Z -0.68                  1.69

     C  A-*  THE <TARRY> WAS THE VICTOR IN THE ELECTION.                  0.306 0.685 0.009 108  0.266 0.734 0.0    94

                                                       GRADE COMPARISONS :  H    3.08**    L   0.71       A   0.76

    HEADLINES TEST                                           ----------GRADE 6----------  ----------GRADE 9----------

ITEM FM        HEADLINE                                      1(R)  2(W)  3(?)  4(NR)  N   1(R)  2(W)  3(?)  4(NR)  N
  #
 12  B  H-V  PEOPLE <TARRY> ON WAY TO WORK                   0.327 0.370 0.080 0.222 162  0.574 0.248 0.071 0.106 141

     A  L-A  <TARRY> ROADS CREATE NEW PROBLEMS               0.136 0.500 0.235 0.130 162  0.128 0.667 0.106 0.099 141

                                                          Z   4.08 -2.35 -3.81            7.86 -7.05 -1.05
                                                              ***    *    ***             ***   ***

                                                                  GRADE COMPARISONS:  H    4.32***    L  -0.21
```

APPENDIX E

Sample Forms Used in the Main Study:

(1) Sentence Evaluation test (titled "Word Uses")

(2) Headlines test (labeled Form H-1A)

Note: The Sentence Evaluation booklet also contained 25 items from the Wide Range Vocabulary Test, Form B, by C. R. Atwell and F. L. Wells, copyrighted 1937 by The Psychological Corporation. Because of copyright restriction, these items are not reproduced here.

NAME ______________________________ AGE ________ FORM E-1A

WORD USES

This is a test of how well you know the uses of certain words.

Look at the following three sentences:

A. They said it would be clear today. A [✓ RIGHT] WRONG
B. It is very blossom outside. B. RIGHT [✓ WRONG]
C. We will paint in class today. C. [✓ RIGHT] WRONG

The first sentence is marked RIGHT because the underlined word, clear, is correctly used.

The second is marked WRONG because it does not make sense to use the underlined word, blossom, in this way.

The third sentence is marked RIGHT because the underlined word, paint, is used correctly in that sentence.

Notice that this test has nothing to do with whether the sentences are true or not.

Now here are some more examples for you to try:

D. The children are going to act in a movie. D. RIGHT WRONG
E. The escape of the prisoner was not noticed until yesterday. E. RIGHT WRONG
F. We learned how to large in class today. F. RIGHT WRONG

Be sure to read every sentence carefully. Decide whether the underlined word is used correctly or not. Put a circle around RIGHT or WRONG for each sentence. If you are not sure, give your best guess.

Now you may open your test and begin.

E - 1A

1.	The hunters returned with a big take.	1.	RIGHT	WRONG
2.	He told me his age.	2.	RIGHT	WRONG
3.	They will work very fill to finish.	3.	RIGHT	WRONG
4.	The man was game for the race.	4.	RIGHT	WRONG
5.	Can you stranger it?	5.	RIGHT	WRONG
6.	We got free candy at the movie.	6.	RIGHT	WRONG
7.	The driver said he would chance the race in the snow.	7.	RIGHT	WRONG
8.	We had a very line work to finish.	8.	RIGHT	WRONG
9.	Our car broke down during our trip.	9.	RIGHT	WRONG
10.	Dogs always private the mailman.	10.	RIGHT	WRONG
11.	The live is almost ready to go.	11.	RIGHT	WRONG
12.	The summer season will be here soon.	12.	RIGHT	WRONG
13.	It was a very grave problem.	13.	RIGHT	WRONG
14.	The children fell asleep at the end of the day.	14.	RIGHT	WRONG
15.	Our teacher will skirt the problem for now.	15.	RIGHT	WRONG
16.	We used a train piece of string to tie the box.	16.	RIGHT	WRONG
17.	I have to eat very mill before mother comes back.	17.	RIGHT	WRONG
18.	We will read each page in the book carefully.	18.	RIGHT	WRONG
19.	Second graders can name the days of the week.	19.	RIGHT	WRONG
20.	If you are lucky, you will sight a new star.	20.	RIGHT	WRONG
21.	They were told to only wish for good things.	21.	RIGHT	WRONG

NAME________________________________ AGE_____ FORM H-1A

DO NOT OPEN THIS BOOKLET UNTIL TOLD TO DO SO.

This is a test of how well you understand newspaper headlines.
Here is a sample headline:

1. CLEAR WEATHER TODAY

What does this mean? You could say it means, "The weather will be sunny today."

FOR EACH HEADLINE, WRITE A COMPLETE SENTENCE THAT EXPLAINS ITS MEANING.

There is a special rule for this test: Each headline has one word underlined. In your explanation, you are not to use this word, or another form of it. You should find some different word or phrase to explain the meaning of the underlined word.

In the example above, we used the word "sunny" to explain the meaning of CLEAR.

Here are more examples, with explanations already written:

2. FIRST SPRING BLOSSOMS SEEN

The first flowers of spring were seen yesterday.

3. CHILDREN PAINT SNOW PICTURES

The children made pictures of the snow.

4. BABIES REST AFTER EATING

The babies took a nap after they ate their dinner.

Now try these:

5. DOG LEFT BEHIND BY FAMILY

____

____

6. WATCHERS SIGHT NEW STAR

____

____

Remember to EXPLAIN WHAT THE HEADLINE MEANS, and do not use the underlined word in your sentence.

1. NO CHANCE TO SAVE LIVES IN FIRE

2. PRIVATE GETS MEDAL

3. MORE PEOPLE LIVE IN CITIES

4. SALT USED TO SEASON FOOD

5. BODY FOUND IN GRAVE

6. COUNTRY GOING BROKE

7. STUDENTS WARNED NOT TO MILL ON STREETS

8. FRONT PAGE OF NEWSPAPER NEVER DULL

9. TEACHERS NAME BEST STUDENTS

10. TEACHERS TO END GRADING OF STUDENTS

11. LONG LINE EXPECTED FOR NEW MOVIE

12. WOMAN GETS SKIRT CAUGHT IN BUS DOOR

13. STUDENTS WISH SCHOOL YEAR OVER

14. BOY ABLE TO TRAIN OLD DOG NEW TRICKS

15. SIGHT GIVEN TO BLIND BOY

16. HUNTERS RETURN WITH BIG TAKE

17. CHILD TELLS HIS AGE

18. WORKERS FILL HOLE

19. RUNNER GAME FOR RACE

20. MAN TELLS OF STRANGER THINGS TO HAPPEN

21. FREE CANDY AT MOVIE